M69H
902-03

VOL. I. NO. I

APRIL, 1903.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

BULLETIN OF THE

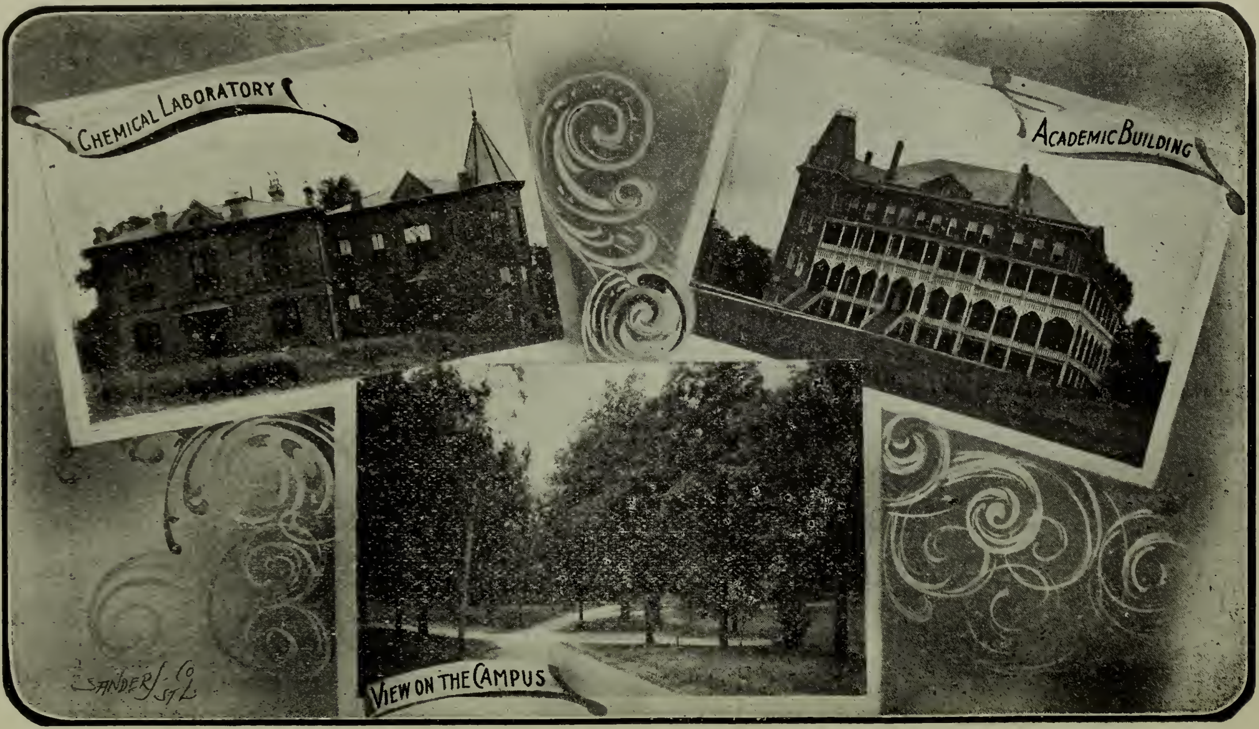
MISSISSIPPI
AGRICULTURAL AND MECHANICAL
COLLEGE.

CATALOGUE
1902-1903.

AGRICULTURAL COLLEGE, MISSISSIPPI.

Published by the Mississippi Agricultural and Mechanical College. Issued Quarterly. Application has been made to the Department for entry of this publication as Second-class matter.

Thomas Arkle Clark


CHEMICAL LABORATORY
ACADEMIC BUILDING
VIEW ON THE CAMPUS
SANDERS Co STL

TWENTY - THIRD

ANNUAL CATALOGUE

OF THE

MISSISSIPPI

AGRICULTURAL AND MECHANICAL

COLLEGE.

1902-1903.

Express and Postoffice - - - Agricultural College, Miss.
Telegraph and I. C. R. R. Freight Office - - Starkville, Miss.
M. & O. Freight Office - - - - A. & M. College, Miss.

ANNOUNCEMENT

1903-1904

1903
HARMON PUBLISHING COMPANY,
Jackson, Miss.

Thomas Arkle Clark

TRUSTEES.

His Excellency, A. H. Longino	Ex-Officio President
Hon. Thad B. Lampton	Ex Officio Treasurer
Hon. H. L. Whitfield	Ex Officio Trustee
R. C. King	Secretary

EXECUTIVE COMMITTEE.

Col. W. B. Montgomery	Starkville
Hon. J. F. McCool, (Resigned Jan. 29, 1903)	Kosciusko
Hon. J. T. Harrison	Columbus
Hon. T. L. Wainwright	Stonewall
Hon. A. T. Dent	Macon
Hon. J. J. Coman	Jackson

TRUSTEES WHOSE TERMS EXPIRE IN 1904.

Dr. J. B. Bailey	Conehatta
Hon. J. J. Coman	Jackson
Hon. J. F. McCool(Resigned Jan. 29, 1903)	Kosciusko
Hon. A. T. Dent(Appointed Feb. 7, 1903)	Macon

TRUSTEES WHOSE TERMS EXPIRE IN 1906.

Col. W. B. Montgomery	Starkville
Maj. T. C. Dockery	Love Station
Maj. W. H. Morgan	Sheppardtown

TRUSTEES WHOSE TERMS EXPIRE IN 1908.

Hon. W. C. George	Greenwood
Hon. J. T. Harrison	Columbus
Hon. T. L. Wainwright	Stonewall

MEMBERS OF THE FACULTY

AND OTHER OFFICERS.

EXECUTIVE DEPARTMENT.

J. C. Hardy, A. M.	President
I. D. Sessums, B. Sc.	Acting Commandant

DEPARTMENTS OF INSTRUCTION.

AGRICULTURE.

E. R. Lloyd, M. Sc.	Professor
J. R. Ricks, B. Sc.	Fellow

SCHOOL OF ENGINEERING.

B. M. Walker, M. Sc.	Director, and Prof. of Mathematics
J. W. Fox, M. Sc.	Professor of Civil and Rural Engineering
Albert Barnes, M. M. E	Prof. of Mechanical Engineering
C. E. Ard, B. Sc.	Act. Prof. of Phys. and Elect. Engineering Prof. of Geology and Mining Engineering
R. C. Carpenter, B. Sc	Supt. of Power, and Instructor in Forge and Foundry.
J. E. McKell, B. Sc.	Instructor in Wood Shop

TEXTILE.

J. T. Broadbent	Acting Director
L. C. Raiford, Ph. B	Instructor in Chemistry and Dyeing
F. A. Abbott	Instructor in Weaving
J. S. Wier, B. Sc.	Instructor in Yarn Manufacture
C. B. Seal	Instructor in Designing

HORTICULTURE.

A. B. McKay, B. Sc.	Professor
C. T. Ames, B. Sc	Assistant

DAIRY HUSBANDRY.

J. S. Moore, M. Sc.	Acting Professor

VETERINARY SCIENCE.

J. C. Robert, M. D., V. M. D.	Professor

CHEMISTRY.

W. F. Hand, M. Sc.	Professor
J. S. Carroll, M. Sc.	Assistant
J. P. Montgomery, A. B.	Assistant
I. D. Sessums, B. Sc.	Assistant
H. S. Chilton, B. Sc.	Assistant

BIOLOGY.

G. W. Herrick, B. Sc.	Professor

ENGLISH.

W. H. Magruder, A. M.	Professor
F. J. Weddell, B. Sc.	Associate Professor
R. H. Leavell, A. B.	Assistant
D. C. Hull, B. Sc.	In charge of Addresses

MATHEMATICS.

B. M. Walker, M Sc.	Professor
C. R. Stark, B. Sc.	Instructor
A. M. Maxwell	Instructor in Bookkeeping

MILITARY SCIENCE AND TACTICS.

I. D. Sessums, B. Sc.	Acting Professor

HISTORY AND CIVICS.

J. M. White, M. Sc.	Professor

EXPERIMENT STATION.

W. L. Hutchinson, M. Sc.	Director and Chemist
E. R. Lloyd, M. Sc.	Agriculturist and Assistant Director
G. W. Herrick, B. Sc.	Botanist and Entomologist
A. B. McKay, B. Sc.	Horticulturist
J. C. Robert, M. D., V. M. D.	Viterinarian
W. R. Perkins, M. Sc.	Associate Chemist
J. S. Moore, M. Sc.	Dairy Husbandry
R. C. King, B. Sc.	Treasurer
Miss Maude Butler	Stenographer

PREPARATORY DEPARTMENT.

J. C. Herbert, M. Sc.	Professor in Charge
J. S. Wallace, B. Sc.	Assistant Professor
J. L. Stinson, B. Sc.	Assistant
T. E. Royals, B. Sc.	Instructor
D. C. Hull, B. Sc.	In charge of Reading
A. M. Maxwell	Instructor in Penmanship and Bookkeeping

OTHER OFFICERS.

R. C. King, B. Sc.	Secretary and Purchasing Agent
A. F. Rush, Jr	Assistant Secretary
J. A. Turnipseed	Stenographer and Typewriter
W. H. Barr, M. D	Surgeon
J. M. Geraghty	Hospital Nurse
W. J. Gallaway	Steward and Janitor
J. F. Montgomery	Superintendent of Farm
J. M. White, M. Sc.	Librarian
C. R. Stark, B. Sc.	Assistant Librarian
G. C. Collison	Manager Laundry

Objects and History of the College.

The College owes its origin to an act of the General Government, passed in 1862, to encourage the establishment of industrial colleges in the States to benefit "Agriculture and the Mechanic Arts." This act, among other things, provides for "the endowment, support and maintenance in each State of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts in such a manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes."

The status of the Agricultural Land Scrip Fund, donated by the United States Government, is as follows: The scrip representing 207,920 acres of public land, was sold for about ninety cents per acre, realizing in currency $188,298. This amount, by judicious management, was increased to $227,150, which is now in the State treasury, represented by thirty-two-year bonds, running from 1896 to 1928, bearing six per cent. interest per annum.

The Legislature, by the Act of February 28, 1878, divided the sum equally between Alcorn Agricultural and Mechanical College and this college, giving to each $113,575. A subsequent Legislature authorized the sale of $15,000 worth of bonds to purchase lands; so that the amount now in the State treasury to the credit of this college, is $98,575, yielding an annual income of $5,914.50.

The Legislature of Mississippi, in accepting this endowment—a trust fund from the General Government—prescribed the following in the powers given to the Board of Trustees:

"The establishment and maintenance of a first-class institution, at which the youth of the State may acquire a common school education and a scientific and practical knowledge of agriculture, horticulture, and the mechanic arts; also the proper growth and care of stock, without, however excluding other scientific and classical studies, including military tactics."

"They shall regulate the course of study, rates of tuition, management of experimental farm, manner of performing labor, and the kinds of labor to be performed by students."

The Acts of the General and State Governments plainly define the objects of the college. The "leading object" must be to "benefit agriculture and the mechanic arts." Should studies be taught other than such as relate to these interests, they are to be considered secondary, and rather as means by which to comprehend more readily the sciences underlying agriculture and the mechanic arts.

The instruction at the college must be such as to educate and direct the minds and tastes of students to agriculture, horticulture, care and growth of stock, management of farms, manner of performing labor, and to the mechanic arts. The college is not to be in the strictest sense either literary, classical, or military; but, rather, it is to be a college in which the industrial classes shall be given a general education, combined with such scientific and practical knowledge as will make them familiar with the nature of the objects and the forces with which they have to deal.

This necessitates that special stress should be laid on such sciences as underlie agriculture and the mechanic arts, viz.: chemistry, botany, geology, zoology, entomology, physiology, mechanics, mathematics, physics, etc. To understand these properly, a very liberal culture, especially in English, is requisite. The various conditions contributing to an intelligent understanding of agriculture and the mechanic arts comprehend an education as broad and liberal as that needed in mastering any profession. This education, however, must, of necessity, differ in kind. Students whose education is intended to promote the interests designated in the Acts must omit some studies taught in other colleges, looking to a general or special training. This education, too, is to be practical and industrial; students must not only be familiar with farms, machinery for iron and wood-work, and tools, but they must also labor themselves, and in this labor find part of their education, the object of which is to create a taste for agricultural and mechanical pursuits, and to fix and preserve habits of industry.

In conformity with the acts designated, the Board of Trustees located the Mississippi Agricultural and Mechanical College in Oktibbeha county, one and a half miles from the town of Starkville.

The college is on a permanent basis, the Legislature having made ample provision for both agricultural and mechanical instruction, both in theory and in practice. There are now provided three courses, agricultural, mechanical, and textile, all leading to the degree of Bachelor of Science in the collegiate department. The farm, creamery, stock barns and sheds, gardens, orchards, and shops for instruction in wood and iron and foundry work, are ample for practical training.

The Trustees have established a Preparatory and a Collegiate course, which will afford the youth of the State ample means of acquiring, in accordance with the law, a thorough elementary education and a scientific and practical knowledge of agriculture and the mechanic arts.

The large number of students in attendance each year shows that the college supplies a long-felt want to the people of the State, by giving a thoroughly practical education to its youth. It is evident that a large class of our people desire the young men of the State to combine manual labor and laboratory work with literary instruction; and this is a correct idea, where boys are to be educated for industrial pursuits. Training of this kind should be in connection with farm and shop-work, where industrious habits may be preserved, or where such habits may be acquired by those not having them already. Study for four years without the habit of manual labor creates a disinclination for such work, and tends to separate brain work and hand work, giving discredit to the latter.

The development of our Agricultural and Mechanical interests necessitates that theory and practice go together in the education of the farmer and the mechanic. If this is true of the other professions, why not of the farmers? The labor feature corresponds to the technical and expensive instruction that is given at West Point and Annapolis in the numerous drills, encampments, cruises, etc.—to that given in the hospitals and dissecting rooms of medical colleges—in the moot courts of the law school, and in the field work of the engineer.

The instruction in the academic and scientific departments is of the highest importance, and nothing can take precedence over it. The industrial feature comes next, and with it is joined the pecuniary assistance which a student can obtain by his work. It differs from that of the old manual labor school in this: There the important matter was to work enough to pay all expenses; the education received secondary consideration compared with earning enough money to pay one's way. The boy who labors most of his time is physically too tired to accomplish much in his studies; whereas, moderate labor facilitates study. It is desirable that this feature should be understood in connection with the college. It must not be thought that a boy can work his way through by his labor and also get a first-class education. It is impossible to do both. He could not accomplish both if he had a school at his very door. A student here has many advantages: he not only gets his tuition free, but has an opportunity to work and pay for part of his board by his own labor. At home he would have to incur the expense of board and clothing—an expense unavoidable in attending school under any conditions.

Conditions of Admission.

Applicants must be in good health and not less than fifteen (15) years of age. Should, however, two brothers, one above and the other a little under the specified age, apply, exception will be made in the case of the latter, if he is well qualified in other respects. Those who have been students at other colleges must bring with them testimonials of honorable discharge.

All students, on entering college, are required to sign the following pledge:

"I.............. ....do by this instrument of writing, acknowledge my obligation, while I am a student of the MISSISSIPPI AGRICULTURAL AND MECHANICAL COLLEGE, to obey its regulations.

I especially pledge my honor that I will not have in my possession, during term time, or while I remain at the college during vacation, without the written consent of the the President, any deadly weapon, except such arms as are furnished by the Military Department.

I do further pledge myself on honor not to become, while I am a student here, a member of any secret club, society, or fraternity whatever; not to wear the badge of any such secret order; not to affiliate with any secret college organization; not to encourage the inauguration or maintenance among the students of this college of such societies, clubs or fraternities, by whatever name they may be designated; but I pledge myself to actively discourage the same, and to bring to the attention of the President or of the Faculty every violation or proposed violation of the college regulations against secret societies; provided, however, that this pledge is not to prevent my becoming a member of any of the well-known charitable and benevolent orders to which all good citizens, without distinction of class or occupation, are admitted; nor is it to prevent my affiliating with the same under such restrictions as the President and Faculty may impose.

I do further especially pledge myself on honor that I will not treat with disrespect, by shouting or otherwise, any officer or student of the college, any visitor upon the grounds, or any applicant for admission to the college, and that I will not engage in "hazing" or in any other maltreatment of a fellow student or of any other person on the college grounds, whether a resident or a visitor.

Acknowledging by my signature that I fully understand the nature of this instrument of writing, I again pledge my honor that I will carry out in good faith the spirit and letter of this agreement, by which I become entitled to the benefits of membership in the Corps of Students in the Mississippi Agricultural and Mechanical College."

Every student in taking the above pledge, obligates himself to abstain from cigarette smoking, from gambling of every description, and from the use of all intoxicating drinks. The State is not willing to waste money in trying to educate any of these classes of young men, for it cannot be done.

Unless a young man is willing to take the above pledge in good faith, he is advised to remain away; for no such young man will be tolerated in the college.

Applicants for admission into the preparatory department must be able to read ordinary prose readily and intelligently, spell words of common use, and explain the construction of simple English sentences. They must also be well acquainted with the principles and operations of arithmetic through common and decimal fractions.

No student, however, will be admitted to the preparatory department, unless he presents a certificate from his County Superintendent saying he is not in reach of a high school, nor of a graded school. The preparatory department here is intended only for those who can not get such preparatory education at home as will fit them for our freshman class.

Applicants for the freshman class will be required to pass a good examination on English grammar, arithmetic, geography, and history of the United States.

Applicants will be admitted into any class in the College, at

Thomas Smith Brock

any time, if they can pass a satisfactory examination on all of the preceding studies of the course.

Those who desire to devote their attention to the study of special subjects bearing on agriculture or the mechanical arts, may take a select course, provided they pass an examination which would admit them into the freshman class, and, in addition, shall pass such examination as the professor in charge of the departments selected shall prescribe.

Should students desire to take a select course on account of failure in any entrance examination in the regular course, they will be permitted to do so.

APPORTIONMENT OF STUDENTS.

The following apportionment of students to the different counties is annonnced for the session of 1903 and 1904:

COUNTY.	NO. ENTITLED.	COUNTY.	NO. ENTITLED
Adams	3	Lincoln	8
Alcorn	7	Lowndes	4
Amite	7	Madison	4
Attala	9	Marion	6
Benton	4	Marshall	7
Bolivar	2	Monroe	8
Calhoun	8	Montgomery	6
Carroll	7	Neshoba	7
Chickasaw	6	Newton	8
Choctaw	6	Noxubee	1
Claiborne	3	Oktibbeha	4
Clarke	7	Panola	6
Clay	4	Perry	5
Coahoma	2	Pearl River	3
Copiah	12	Pike	8
Covington	5	Pontotoc	9
DeSoto	4	Prentiss	8
Franklin	4	Quitman	1
Greene	3	Rankin	7
Grenada	2	Scott	6
Hancock	4	Sharkey	1

Harrison	8
Hinds	7
Holmes	5
Issaquena	1
Ittawamba	8
Jackson	6
Jasper	6
Jefferson	3
Jones	8
Kemper	6
Lafayette	9
Lauderdale	13
Lawrence	5
Leake	7
Lee	9
Leflore	1
Simpson	5
Smith	8
Sunflower	2
Tallahatchie	4
Tate	6
Tippah	8
Tishomingo	6
Tunica	1
Union	8
Warren	6
Washington	3
Wayne	3
Webster	6
Wilkinson	3
Winston	7
Yalobusha	6
Yazoo	6

Should more than the number apportioned to a county desire to attend the college, they will send in their applications through their County Superintendents to the President of the college. As all counties do not send their full quota, there is always room for some students who make application in the manner above prescribed. The Code of 1892, extracts from which have been given, virtually devolve upon the County Superintendents the responsibility of having their counties represented at the college. The President and the Secretary will at all times cheerfully co-operate with them in securing the full quota of students from their counties, and to this end will supply all necessary catalogues and circulars, and will, by correspondence, give full information desired.

EXTRACTS FROM THE LAW IN THE CODE.

TUITION FREE AND NOT FREE.

"Tuition shall be free in all branches to students of this State for five years."

DORMITORY PRIVILEGES.

"The privilege of rooming in the domitory belongs to the free students, and to the due quota of boys from each county in preference to all others."

APPORTIONMENT OF STUDENTS.

"The right belongs to each county to have a number of students admitted proportionate to its number of white educable males compared with the whole number in the State."

THE SAME, HOW MADE.

"The apportionment shall be made and announced by the President of the college annually, and communicated to the Superintendents of Education of the Counties."

THE SAME, DUTY OF SUPERINTENDENT.

"The Superintendent of each county, after due notice published, with the consent of the Board of Supervisors, shall give Certificates of selection to the number of students to which the county is entitled, and this, in addition to those already in the college, if any. And this selection of new students shall be made by drawing."

THE SAME, HOW CERTIFICATE ATTESTED, ETC.

"The certificate of selection shall be attested by the Clerk of the Board of Supervisors under its seal, and shall entitle the holder to admission into the college, with all its privileges, to pursue all its industrial branches selected, and to enter the sub-class or class for which he is fitted."

In 1882 the Board of Trustees passed resolutions for the admission of girls as students at the college. But the college is not equipped for supplying board and lodging for women, hence the attendance of young ladies is not solicited. If, however, young ladies desire to enter the college, and can secure board either in town or on the campus in private families, they will be admitted as regular students. This information is furnished for the benefit of any young ladies who may desire to enter, knowing that it is impossible for them to receive that vigilant attention here which they would receive at an institution specially fitted for the education of women.

A limited number of students from other States will be received into the college next session should they apply. A tuition fee of twenty dollars ($20.00) will, however, be charged to all such students; but none of this amount will be refunded because of a student's remaining less than a session. They will be on the same footing as students from Mississippi, except that they will not be allowed to live in the domitory, unless there are rooms not required for Mississippi students.

Expenses.

A matriculation fee of $5.00 entitles a student to the privileges of a five years' course. After five years, a tuition fee of $20.00 is charged each session, all of which must be paid whether a student remains at the college an entire session or not.

The Surgeon's fee, which includes attention and medicine, is $5.00 for each student, and must be paid at the beginning of each session, or when he enters.

The College furnishes a room in the dormitory free of rent, also the use of a limited number of single iron bedsteads for fifty cents each per session, but students must supply themselves with all necessary furniture, such as reading tables, washstands, chairs, etc., which, when two boys are together, cost about $6.00 each. These things can usually be purchased here to good advantage, but such articles as blankets, sheets, and towels, should be brought from home.

Students of the junior and senior classes pay for the apparatus they break. Text books and drawing materials will probably cost on an average, not exceeding $5.00 per term for students in the freshman class and $4.00 per term for those in the preparatory department.

The dormitory is heated with steam from a central power plant. Fuel will be charged at actual cost, which, for one session, will probably not exceed $5 00 for each student living in the dormitory. In order to make this expense as little burden as possible, a charge of from $1.00 to $1 50 per month is made against the account of each dormitory student until the coal bought for the season has been paid for. Day students will be charged each session in advance a fuel fee of $1.00.

The buildings are supplied with electric lights and with water from a well about one thousand feet deep. Students pay for lights and water, including bath house supplies, at a cost of about fifty to sixty cents per month for each student.

The College owns and operates a steam laundry where all the work of the students has been done this session at a cost of $1.25 per month for each.

Board is furnished at actual cost, the necessary groceries and supplies being bought at wholesale wherever they can be secured to the best advantage. The expenses at the end of each month are made up by the Steward and divided among the students in the dormitory. They include the cost of keeping up the dining hall, sweeping the halls of the dormitory, replacing broken crockery, etc., necessary to keep the boarding department in efficient working order. The average expense per month this session has been $6 29.

All students are required by a resolution of the Board of Trustees to wear the prescribed uniform within five miles of the College buildings. The suit, consisting of coat, pants, and cap, will cost next year about $14.50, but the cost varies from year to year, owing to the fact that the uniform is made by contract let to the best bidder. The material is cadet gray. In addition to the regular uniform, a brown linen blouse of prescribed style is worn by all students when the weather is warm. This not only saves the more expensive coat, but is much more comfortable. As these blouses have to go to the laundry, two will be needed at a cost of about $1.50 each.

It will be observed that students are permitted to select either the Agricultural Course, the Engineering Course, or the Textile Course, at the beginning of the sophomore year. Those who take the Agricultural Course will be required to work either in the farm, the garden, the Experiment Station, or on the campus, and are paid eight cents per hour for such labor faithfully performed. Those who take the Engineering Course or the Textile Course will be required to work in the shops, and since this is purely educational, no pay is allowed them for such work. Students in the freshman and preparatory years work on the farm, in the garden, and in the shops. They are paid eight cents per hour for faithful labor on the farm and in the garden, but are not paid for work in the shops.

To assist in meeting expenses, students taking the Agricultural Course can labor from two to three hours each day, three to five days in the week, limited by money appropriated for this purpose. This is compulsory to the extent that each student must perform a prescribed minimum amount of labor. With ordinary weather this will enable him to earn an average of about $25.00 a year. Some have earned as much as $60.00. They can also labor on Saturday, and very frequently work longer than three hours daily during the week. Those who do this earn much more, and it goes far toward meeting their expenses. Money so earned is credited for board, and it is not to be drawn even when the deposit is ten dollars, except in final settlement.

It is the desire of the Board of Trustees that parents and guardians co-operate with the College authorities in encouraging the practice of economy by students, and to this end it is suggested that students should not be supplied with much money in excess of what is required for necessary expenses.

Quite a number of students have by their labor brought their total expenses down to an average of $100 for the session. This includes board, fuel, washing, clothing, and average traveling expenses.

Each student must have at least $10 at the beginning of each board month to pay his board for the ensuing scholastic month. Students must see for themselves that this deposit is made and not depend upon their parents being notified by the College authorities. All money deposited is allowed in settlement of accounts at the end of the month or upon withdrawal, except that deposited for fees, which is not refunded. There must be a settlement at the end of each month; students who cannot pay must leave the College. No honorable discharge will be given any student till he pays all dues.

New students are required to pay to the Secretary at the beginning of the first term or when they enter:

Matriculation fee	$ 5 00
Medical fee	5 00
For Uniform, about	14 50
Rent of iron bedstead	50
Advance on board	10 00
	$35 00

In addition to the above, they must have from $15 00 to $20.00 to furnish their rooms and purchase books, making a total of $50.00 to $55.00 necessary for a new student to enter. The College authorities assume no responsibility in regard to the expenditure of money by students unless deposits for spending money are made with the Secretary, who must have instructions at the time deposits are made regarding the expenditure.

An itemized statement of the account of any student will be sent to his parent or guardian, provided the Secretary is requested by the parent or guardian to do so; otherwise statements will not be sent, owing to the great amount of work involved in making them.

AGRICULTURAL COLLEGE (not Starkville) is our postoffice and our express office. Both post office, and express money orders can be bought or collected at "Agricultural College," without the necessity of going to Starkville—over a mile away. Much delay is often caused by our letters being addressed to "Starkville" instead of to "Agricultural College."

Discipline.

The President, by College Regulations, is responsible for the government and management of the College and supervises and controls all the departments, collegiate and otherwise.

The Commandant has immediate command of the battalion of students, and is responsible for the military organization. On his recommendations the President appoints the officers and non-commissioned officers of the battalion. All permits for privileges, all excuses and explanations for delinquencies must be submitted through him. It is his duty to report to the President, for his action, all violation of college regulations. He assists the President and Faculty in their efforts to enforce discipline, and sees that the punishments given by them are served.

To enforce discipline and preserve orderly conduct, reports are made by the student officers and non-commissioned officers, and demerits and punishment are given by the President for those reports which are not removed on explanation submitted to the Commandant. Students have the right of appeal in writing, through the Commandant, to the President, when they think injustice has been done them.

The scale of demerits is from 1 to 5, according to the degree of the offense.

The grades of punishment are:

I. Reprimand, demerits, privation of recreation, and walking extras.

II. Arrest, confinement to room or college limits, and reduction to ranks of officers and non-commissioned officers.

III. Suspension, dismission with privileges of resigning, and public dismission.

IV. Expulsion.

Only the President and Faculty can award punishment. Those of first and second grades are given by the President, and those of the third and fourth grades by the Faculty.

The discipline has for its chief aim and object to secure, with as little severity as possile, prompt and cheerful obedience to, and respectful, quiet demeanor towards, the College authorities, orderly conduct in the section rooms, dormitory, mess-hall, chapel, and in the fields and shops.

The military feature is a most effective means of enforcing and securing discipline. The company and battalion organizations give to the officers and non-commissioned officers acquaintance with the proper exercise of authority, and students acquire habits of obedience.

This feature is made to conduce to the furtherance of the principal aim and object of the College—its industrial feature.

In order to maintain discipline, do justice to all, clearly discriminate between the faithful and the unfaithful, and render a correct report of conduct, class-standing etc., at the end of each half term, the attention of the patrons of the College is respectfully directed to the following regulations governing absences, and their co operation is earnestly requested:

I. After regularly matriculating, no student, except on recommendation of the surgeon, will be permitted to go home or elsewhere, except at such time as the faculty may designate, unless the parent or guardian explicitly directs the President to grant the privilege.

II. All applications for leave to go home or elsewhere must be for a specified time.

III. Any student who is on leave of absence and cannot return at the expiration of the time granted, must notify the President, give reasons therefor, and ask for extension of leave—designating the date on which he hopes to return; otherwise his name may be dropped from the rolls and some one else taken to fill the vacancy.

IV. Students who are absent on account of sickness are requested to report before the end of each month their state of health and the probability of their returning that session.

V. Patrons are earnestly requested not to permit their sons to remain away fram the College at any time during the session, one moment longer than is absolutely necessary, as it is a very great detriment to the student himself, in a measure detrimental to his class, and very discouraging to the instructor to have the students lose the benefits of one lecture, or the explanations of a single recitation.

System of Grading and Reports.

Students are carefully graded in their different studies. The maximum grade is 100. Each student must average 60, or he is pronounced deficient.

As each study is completed an examination is held in that study. The sum of the examination mark and the average of the daily marks in each study, divided by two, constitutes the final mark or grade. Should this fall below 60, or the final examination grade be less than 50, the student is pronounced deficient. Students failing will be allowed until the closing week of the next succeeding term for a new examination. Those failing in two studies at any time will not be permitted to go on with their class. As the instruction is given largely by lectures and work in the laboratory, field, garden and shops, it is very important for students to remain during the entire session.

At the end of every half term, a report of the scholarship, attendance, and deportment of each student is sent to his parent or guardian. By this means it is hoped to enlist the active cooperation of the parents and guardians in the endeavor to secure diligent study, regular attendance, and good deportment on the part of each student.

Curricula.

AGRICULTURAL COURSE.

FRESHMAN CLASS.	Terms	Hours Per Week.
Agricultural	1	5
Algebra	3	5
English	3	5
English History	1	5
Botany	1	3
Horticulture	½	5
Anatomy and Physiology	1	5
Drawing	1	5
Book-Keeping	1	5
*Practicals, Drills and Rhetoricals	3	10

*Practical Agriculture, Horticulture, Dairying, Anatomy and Physiology, Mechanical Work, Textile Work, in afternoons and Saturday forenoons.

Course in—	Agriculture		Horticulture		Dairying		Veterinary Science		Chemistry	
SOPHOMORE CLASS.	Terms	Hours Per Week.	Terms	Hours Per Week.	Terms	Hours Per Week.	Terms	Hours Per Week.	Terms	Hours Per Week.
Agriculture	1	5	1	5	1-2	5	1-2	5	...	...
Dairying	...	...	½	5	1	5	1-2	5½	...	...
English	3	5	3	5	3	5	3	5	3	5
Horticulture	1	5	1	5	1-2	5	1-2	5	..	...
Mathematics	2	5	2	5	2	5	2	5	3	5
Chemistry	1½	5	1½	5	1½	5	1 1-2	5	3	5
Physics	2	5	2	5	2	5	2	5	2	5
General History	1	5	1	5	1	5	1	5	1	5
Veterinary Science	½	5	...	...	1-2	5	1	5		...
†Practicals, Drills, Rhetoricals	3	10	3	10	3	10	3	10	3	10

†Pratical Agriculture, Horticulture, Dairying, Veterinary Science, Physics, Chemistry, Drawing, Farm Mechanics.

JUNIOR CLASS.										
English	3	5	3	5	3	5	3	5	3	5
Mathematics	2	5	2	5	2	5	2	5	3	5
Agricultural Chemistry	1	5	1	5	1	5	1	5	3	5
Agriculture	1	5	1-2	5	1-2	5	1-2	5	1	5
Veterinary Science	1	5	1-2	5	1-2	5	1 1-2	5	..	...
Botany	1	5	1	5	1	5	1	5	...	...
Zoology	1	5	1	5	1	5	1	5	...	...
American History	1	5	1	5	1	5	1	5	1	5
Civil Government	1	5	1	5	1	5	1	5	1	5
Horticulture	...	...	1	5	...	...	...	...	..	...
Dairying	...	...	...	...	1	5	...	...	...	...
*Practicals, Drills, Rhetoricals	3	10	3	10	3	10	3	10	3	10

SENIOR CLASS.										
English	3	2	3	2	3	2	3	2	3	2
Mathematics	2	5	2	5	2	5	2	5	2	5
Political Economy	1	5	1	5	1	5	1	5	1	5
Military Science and Tactics	1	5	1	5	1	5	1	5	1	5
Entomology	1	5	1	5	1	5	1	5	...	...
Agricultural Chemistry	2	5	2	5	2	5	2	5	3	5
Agriculture	1	5	...	...	...	...	...	...	1	5
Botany	...	...	1-2	5	1-2	5	1-2	5	...	...
Plant Diseases	1	5	1	5	...	...	...	...	...	...
Geology	1	5	1	5	1	5	1	5	3	5
Agricultural Engineering	1-2	5	1-2	5	1-2	5	1-2	5	...	...
Veterinary Science	1-2	5					1 1-2	5	.	...
Horticulture	...		1	5	...	...	...	...	...	...
Psychology and Ethics	1	5	1	5	1	5	1	5	1	5
Dairying	...	...	...	...	2	5	1-2	5	...	...
*Practicals, Drills, Rhetoricals	3	10	3	10	3	10	3	10	3	10

*Practical Agriculture Horticulture, Dairying Veterinary Science, Biology, Chemistry.

Engineering Course.

FRESHMAN CLASS.	Terms	Hours per Week.	SOPHOMORE CLASS.	Terms	Hours per Week
Agriculture	1	5	English	3	5
Mathematics	3	5	Mathematics	3	5
English	3	5	Physics	2	5
English History	1	5	Chemistry	2	4½
Botany	1	3	Chemical Laboratory	1	5
Horticulture	1–2	5	General History	1	5
Anatomy and Physiology	1	5	Drawing	4	4
Drawing	1	5	Forge and Foundry	3	4
Book-Keeping	1	5	Physical Laboratory	2	2
Practicals, Drills, etc	3	10	Drills, etc	3	2

COURSE IN—	Mechanical Engineering		Physics and Electrical Eng.		Civil and Rural Engineering		Geology and Mining Eng.	
JUNIOR CLASS.	Terms	Hours per Week.	Terms	Hours per Week.	Terms	Hours per Week.	Terms	Hours per Week.
English	3	5	3	5	3	5	3	5
Mathematics	3	5	3	5	3	5	3	5
Surveying and Engineering					3	5	1	5
Mechanical Engineering	3	5	3	5	3	5		
Electrical Engineering	3	5	3	5			2	5
Drawing	3	2	3	2				
Geology					3		3	5
Practical Surveying							1	6
Machine Shop	3	2	3	2				
Electrical Laboratory	3	2	3	2			3	2
Mechanical Laboratory	3	2	3	2	3	2		
Geological Laboratory							1	5
Field Geology							1	5
Drills and Rhetoricals	3	3	3	3	3	3	3	3
SENIOR CLASS.								
Military Science and Tactics	1	5	1	5	1	5	1	5
English	3	2	3	2	3	2	3	2
Mathematics	2	5	2	5	2	5	2	5
History and Civics	3	5	3	5	3	5	3	5
Civil Engineering	½	5	1-2	5	3	5		
Electrical Engineering	1½	5	3	5		5		
Mechanical Engineering	3	5	1 1-2	5	2	5		
Geology and Mining Engin'rng	1	5	1	5	1	5	3	5
Practical Engineering	1	2	1	2	3	5		
Electrical Laboratory	3	2	3	2				
Mechanical Laboratory	3	2	3	2	3	2	3	2
Designing	1	2	1	2				
Field Geology							1	4
Geological Laboratory							2	5
Machine Shop	2	2	2	2				
Drills and Rhetoricals	3	3	3	3	3	3	3	3

There will be a two years practical course in Mechanical Engineering and Electrical Engineering.

Thomas Arkle Clark

Textile Course.

FRESHMAN CLASS.	Terms	Hours per Week.
Agriculture	1	5
Algebra	3	5
English	3	5
English History	1	5
Botany	1	3
Horticulture	1-2	5
Anatomy and Physiology	1	5
Drawing	1	5
Book-Keeping	1	5
*Practicals, Drills and Rhetoricals	3	10

JUNIOR CLASS.	Terms	Hours per Week.
Designing and Fabric Analysis	3	4
Chemistry	3	4
English Criticism	1	4
Power Weaving	3	5
Political Economy and Constistitution of United States	1	4
Mechanical Engineering	1	4
Literature	2	4
Chemical Laboratory	1	4
Chemical Laboratory	2	3
Yarn Manufacture	3	6
Machine Shop	3	4
Dyeing	3	3
Rehearsals	2	2
Drills	3	2
Rhetoricals	2	1

SOPHOMORE CLASS.	Terms	Hours per Week.
Textile Design	3	5
Algebra	1	5
Rhetoric and Etymology	3	5
Yarn Manufacture	3	6
Physics	1	5
Geometry	1	5
General History	1	5
Chemistry	2	5
Drawing	3	3
Forge Shop	1	4
Warp Preparation	3	3
Foundry	2	2
Chemical Laboratory	2	3
Drills	3	2
Artillery Drill	1	1
Rhetoricals	2	1

SENIOR CLASS.	Terms	Hours per Week.
Textile Chemistry	3	4
Designing	3	5
Mechanics	1	4
Electrical Engineering	3	4
Military Science and Tactics	1	4
Mill Economy	1	4
Power Weaving	3	5
Yarn Manufacture	3	6
Fabric Analysis	3	2
Dyeing	3	3
Rehearsals	3	2
Drills	3	2
Rhetoricals	2	1

*Practical Agriculture, Horticulture, Dairying, Anatomy and Physiology, Mechanical Work, Textile Work, in afternoons and Saturday forenoons.

PRACTICAL WORKING BOYS' COURSE.

This course has been arranged for the benefit of those young men of the state who are unable to take the regular course. Where the means may be obtained, of course, it is much better to take one of the regular courses; but this course opens up a way by which a boy or young man may come here without a dollar and by grit and determination finally get an education. Those taking this course are only prospective students at first, working on the farm every day that the weather permits, being paid what their work is worth, being taught an hour every night and at such other times as circumstances will permit. In one year a boy ought to save enough money to enter College regularly the next session. During this year on the farm,he will become familiar with all the improved breeds of cattle and how to feed them; with all the improved agricultural implements and how to handle them; and with the most scientific methods of farming. This course is supplying a long felt want, and will soon be one of the most popular in the College.

SHORT WINTER COURSE IN AGRICULTURE.

This course is intended for farmers who wish to acquire definite knowledge concerning the subjects related to their calling, as well as the best practices of modern agriculture. The entire time of the student of this course is given to the study of agricultural subjects. The time required is so short and the expense so small that every young farmer can provide ways and means of taking this course, which only requires ten weeks for the first year and ten weeks the second year. This course will begin at the opening of the College after the Christmas holidays and end about the middle of March. If the room is available, dormitory privileges will be given to students in this course as they are given to other students.

Students who take this course will receive instruction in agriculture, horticulture, agricultural chemistry, botany, entomology, veterinary science, and book-keeping.

The following synopsis will show, in part, the ground covered by these students:

AGRICULTURE.—Tillage, staple crops, grasses and forage plants; fertilizers, restorative crops and soil improvement; practical feeding, breeding and care of live stock; farm drainage, farm buildings, dirt roads, terraces and ditches; butter making and milk testing, hay making, stable manures, and poultry husbandry.

HORTICULTURE,—Selection of soil, preparation of soil, cultivation and fertilization of crops; green-houses, cold-frames and hot-beds; orchard fruits and the home garden.

AGRICULTURAL CHEMISTRY.—Chemistry of soils, air, and plants; fertilizers and manures; composition of feeds and the compounding of rations; humus and soil matter.

BOTANY.—How plants grow, diseases of plants, classes of agricultural plants, e. g. legumes and grasses.

ENTOMOLOGY.—Injurious insects—method of combating; what, when, and how to spray.

VETERINARY SCIENCE.—Common diseases of stock — how to detect, locate, and treat them; care and management of stock; judging live stock and practice in scoring by a scale of points; clinics.

BOOK-KEEPING.—How to keep farm accounts.

For full particulars concerning this course, consult the pamphlet on SHORT WINTER COURSE IN AGRICULTURE or write the Secretary of the College.

GRADUATE COURSES.

BIOLOGY.—Systematic study of cryptogams, especially fungi, and morphology and development of the same. Systematic study of the phanerogams, with special attention given to the grasses and forage crops of the South. Life histories of insects and systematic study of the order as a whole, with special reference in each case to the more economic forms, if the student wishes. In zoology, the student will be given opportunity to make careful studies of the structure of typical invertebrate forms, both fresh-water and marine. Both oral and written discussions will be required from time to time

AGRICULTURE. –Principles of stock-breeding and feeding, theory of drainage, cultivation, curing and marketing crops, improvement of soil and manure supply. The student will be required to take charge of field and feeding experiments, dairy and general farm work, under direction of the Professor of Agriculture.

HORTICULTURE.—Pomology, floriculture, landscape gardening, forestry, geographic botany, economic botany, management of green houses, under the direction of the Professor of Horticulture.

CHEMISTRY.—Advanced inorganic chemistry, with a full course of laboratory work; organic chemistry, with laboratory work; history and theory of chemistry; analytical chemistry in the analysis of soils, waters, fertilizers, feed stuffs, alcoholic drinks, ores of various kinds; volumetric analysis and preparation of papers, and a thesis under the direction of the Professor of Chemistry. No time limit is set for the completion of this course. Accuracy and thoroughness are required.

VETERINARY SCIENCE.—Anatomy of the organs of digestion, circulation, respiration, generation, locomotion, and the nervous systems. Texts used: Physiology, Smith; Obstetrics, Dalrymple; Bacteriology, Frankel; Contagious Diseases, Walley and Reports of the Bureau of Animal Industry; Lameness, Liautard; Horse Shoeing, Russell; Examination of Horses for Soundness, Fearuby.

MATHEMATICS.—Analytical geometry, differential and integral calculus, analytical mechanics, and civil engineering.

MECHANIC ARTS.—Graduates desiring to fit themselves for the profession of the engineer will study the designing of prime movers, special machines, kinematics of machinery, graphic statics of trusses and of machinery, hydraulics, thermodynamics, mechanical laboratory tests, and the management of shops. The course is arranged on consultation with the head of the department.

DEGREES.

The degree of Bachelor of Science (B. Sc.) is conferred upon students who spend at least one year in resident study and complete either of the full courses by passing all the required examinations.

The degree of Master of Science (M. Sc.) is conferred on any student who has taken the Bachelor Degree in this college, or in any other college with equivalent courses, and who pursues and completes the graduate course herein prescribed.

For the Master of Science degree, the course of study pursued by the candidate must not be less than one year of resident work. The candidate will be required to select a Major Subject and a Minor Subject; the Minor Subject must be acceptable to the department in which the Major Subject is taken, and is to occupy from one-fourth to one-third of the total time given to the course. The candidates will also be required to prepare papers on five subjects to be assigned in the department having the Major Subject. The facts of these papers must be acceptable to the latter department, and the English to the department of English. The candidate must pass such examinations, oral or written, or both, as the heads of the departments in which he is taking his work may require and shall submit a graduation thesis on a subject of investigation or study in his Major Course. The subject and the thesis matter must be acceptable to the department having the Major Course and the department of English. The candidate must also have a reading knowledge of either French, Spanish, German, or Latin.

While these graduate courses are open to the graduates of other colleges, such students will be required to pay the usual matriculation fee; and, in case chemistry or biology is selected, the student will be charged for the materials used.

The only honorary degree conferred is that of Master of Progressive Agriculture (M. P. A.), bestowed upon those who have achieved eminent success in some branch of agriculture.

TEXT-BOOKS.

FRESHMAN CLASS.

Reed & Kellogg's Higher English; Montgomery's English History; Wentworth's Higher Algebra; Goss' Bench-work in Wood; Anthony's Mechanical Drawing; Bailey's Nursery Book; Bergen's Elements of Botany.

SOPHOMORE CLASS.

Genung's Rhetoric; Curry's South; Faunce's descriptive Geometry; LeConte's Geology; Phillip's New Plane and Solid Geometry; Martin's Human Body (briefer course); Voorhes' Elementary Agriculture; Remsen's Chemistry (briefer course); Elements of Physics, Wentworth & Hill.

Departments of Instruction.

AGRICULTURE.

E. R. LLOYD, PROFESSOR.

The work in the Department of Agriculture is both theoretical and practical, and the study of agriculture is a part of the course of every student.

The subject is taught by lectures, object lessons and recitations from text-books. Each class devotes one afternoon a week to the study of the practical affairs of farming, such as stock judging and the operation of the different kinds of farm implements.

FRESHMAN CLASS.—The students in this class devote one term one hour a day to the study of general farming, soils, fertilizers and manures, restorative crops, drainage, terracing, tillage, cotton, corn, small grain, leguminous crops, pastures, grasses, hay and forage plants.

SOPHOMORE CLASS.—At the beginning of the sophomore year students elect one of three courses of study given at the

College. Those who take the agricultural course are required to specialize in one of the subjects of agriculture, horticulture, dairying, veterinary science, and chemistry. Those making a speciality of agriculture get for their industrial work the following:

LIVE STOCK.—Principles of breeding and selection; characteristics and descriptions of the breeds of beef cattle, dual-purpose cattle, sheep and swine.

SOILS AND TILLAGE.—Lectures; the fertility of the soil and farm implements.

HORTICULTURE.—Construction and management of hot-beds, cold-frames and green-houses; propagation of plants, trees and vines from seed, cuttings, grafts, layers and buds; beautifying the home premises.

VETERINARY SCIENCE.—Common diseases of farm animals and how to treat them.

Farm dairying and farm mechanics are taught on Saturday mornings.

JUNIOR CLASS.—The members of this class are taught the breeding, feeding, and management of horses and mules and are also given lectures on soiling and succulent crops.

VETERINARY SCIENCE.—Infectious diseases of domestic animals. Special attention is paid to tuberculosis, charbon, glanders, and Texas fever, and the manner of preventing and suppressing these diseases.

The students also receive instruction in farm surveying; such as farm leveling, hillside ditches, terraces and tile drainage.

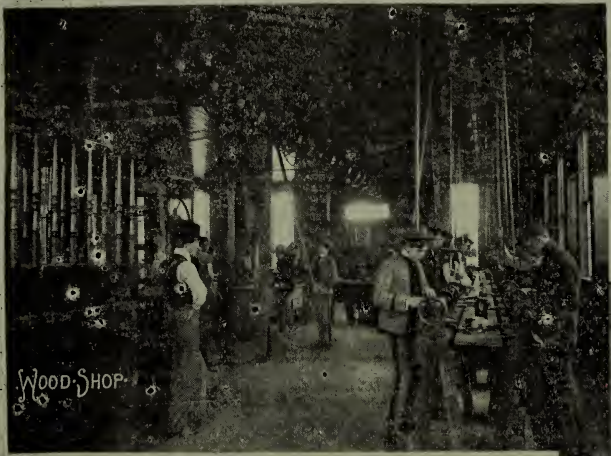
SENIOR CLASS.—This class devotes one term to the study of feeds and feeding, a term and a half to soils, fertilizers, and feeding stuffs (in the Department of Chemistry), a term each to entomology and plant diseases, a term to veterinary science, and half a term to the construction of roads, bridges, etc.

OTHER STUDIES.—Students taking this course also receive instruction in English, Mathematics, Chemistry, Biology, History and Civics, Physics, Mental and Moral Science, Astronomy, Geology, Drawing, and Military Science and Tactics. For detailed information concerning these studies, see the table showing the complete agricultural course, as well as what the several professors have to say of their work in their departments.

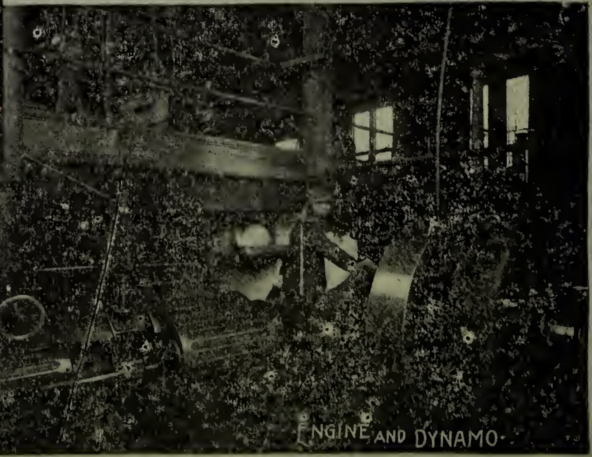
School of Engineering.

B. M. Walker, M. Sc.	Director and Professor of Mathematics
J. W. Fox, M. Sc	Prof. of Civil and Rural Engineering
Albert Barnes, M. M. E.	Prof. of Mechanical Engineering
C. E. Ard, B. Sc.	Act. Prof. of Phys. and Elect. Engineering
———————— ———	Prof. of Geology and Mining Engineering
R. C. Carpenter, B. Sc.	Superintendent of Power, and Instructor in Forge and Foundry.
J. E. McKell, B. Sc	Instructor in Wood Shop

The School of Engineering embraces the departments of Mathematics, Mechanical Engineering, Physics and Electrical Engineering, Civil and Rural Engineering, Geology and Mining Engineering. It offers in each of the four great divisions of engineering—Mechanical, Electrical, Civil, and Mining—an elementary course of instruction in the scientific principles and an introduction into the practice of the profession. The studies are so arranged, that each student carries on the work of two engineering departments in the junior and senior years, and all engineering students have identically the same work in the freshman and sophomore years. The method of instruction is by the study of suitable text-books and by systematic lectures. Associated with the theoretical instruction is a suitable amount of practical exercises in the drawing room, the field, and the laboratories and shops attached to the different departments of the School of Engineering. All engineering students receive the same instruction in English, Mathematics, Chemistry, Civics and History, Biology, and Military Science and Tactics. For detailed information, see courses of instruction and departmental reports.



WOOD·SHOP·



ENGINE AND DYNAMO·

SANDERS CO. ST.L.

Civil Engineering.

JUNIOR YEAR.

SURVEYING—Three terms, five hours a week. The course includes: Differential and profile leveling; land surveying with chain, compass and transit; transit—stadia and plane table topographical surveying; mining, city and geodetic surveying; computations and maps.

FIELD WORK—Three terms, six hours a week. This work includes the use and adjustment of all of the ordinary engineering instruments. Differential level lines are run over a considerable area and bench marks are established; a topographical survey is made of this area with the transit and stadia and plane table. A map of the survey is made showing the contour of the surface, buildings, roads, etc. Profile level lines are run for sewers and drains, and profile maps are made. A true meridian is established by transit and sun method. For mechanical engineering, taken by civil engineering students, see course of study.

SENIOR CLASS.

RAILWAY ENGINEERING—One term, five hours a week with five hours a week practical work.

The work will embrace: A study of simple, compound, and transition curves; a reconnoissance, preliminary and location survey of a railroad line a mile or more in length; map location, setting slope stakes and calculating earth work.

HYDRAULIC ENGINEERING—One term, five hours a week.

The course includes a study of the general theory of hydraulics. Attention will be given to the flow of water through pipes, channels, culverts, and orifices, and to the simple hydraulic motors

SEWERAGE AND TILE DRAINAGE—One term, five hours a week, with practical work. The principles of the subjects are studied, and actual work on the campus and college farm is done by the students. Location and profile maps for sewer lines, and contour maps of drainage areas are made. See course of study for Mechanical Engineering taken by the class.

Rural Engineering.

AGRICULTURAL JUNIOR CLASS.

Farm Surveying and Leveling.—The object of the course is to enable the students to do accurately all kinds of farm surveying and leveling and to get a practical knowledge of the different kinds of land drainage—surface drainage, under drainage,and hill-side ditching and terracing. In addition to a theoretical study of these subjects,students make surveys of parts of the farm with chain alone, and also with chain and compass, compute the areas and make maps. With the level, they lay out surface and tile drains, hill side ditches, level terraces etc. In addition to the practice work, students get considerable experience in actual work on the College farm, under the direction of the instructor. They are also taught how to make and use levels to run hill-side ditches and terraces, and are enabled to compare their accuracy with that of the engineer's level.

AGRICULTURAL SENIOR CLASS.

Road Making.—The subject is studied with special reference to existing conditions in our own State, importance and benefits of good roads, and the progress of road improvement in other states; what constitutes a good road as to grade, width, shape and drainage; culverts and bridges; most economical way of shaping and keeping in repair, and improved machinery, with object lessons; our road laws; the contract system versus statutory labor; engineering work for grading and to find earth moved in cuts and embankments, with practical work; gravel roads.

Equipment.—One complete transit with stadia wires, one theodolite, two Engineer's levels,two compass Locks,hand level, complete plain table, steel tape, chains, stadia and leveling rods.

INTERIOR OF PHYSICAL LABORATORY
GENERAL VIEW OF THE COLLEGE BUILDINGS
A CORNER OF ELECTRICAL LABORATORY
SANDERS-10
ST. L.

Mechanical Engineering.

FRESHMAN YEAR.

MECHANICAL DRAWING.—Two terms, two hours per week; one term, three hours per week. This drawing includes the use of the instruments of the drafting room, drawing from models and copies, and from sectioned pieces of machinery.

SHOP WORK.—Three terms, two hours per week. Bench work in wood, including exercises in planing, sawing, gluing, dovetailing and framing. Woodturning, involving the various operations for turning cylinders, cones, vases, cups, etc.

PATTERN MAKING.—Covering the construction of simple patterns, used in the foundry, and parts of machines under construction in the shops.

SOPHOMORE YEAR.

MECHANICAL DRAWING.—Three terms, four hours per week. The drawing of gearing, parts of machines and complete machines to scale. Making of tracings and blue prints.

SHOP WORK.—Three terms, four hours per week. Forge and foundry work, involving the building and handling of forge fires, bending and welding of iron and steel, forging of tools. Making of small castings in iron, brass and aluminum.

JUNIOR YEAR.

MECHANICAL ENGINEERING.—Three terms, five hours per week. Lectures and recitations, covering the subjects of steam boilers and engines: gearing, transmission of power, by belting shafting, and rope transmission; gas and hot air engines; pumps and hydraulic machinery.

MECHANICAL ENGINEERING LABORATORY.—Three terms, two hours per week. Study use, and calibration of meters, nozzles, steam gages, indicators, and calorimeters. Tests of building material. Efficiency tests of pumps, engines and motors.

SHOP WORK.—Three terms two hours per week. Machine shop, general machine work, including filing, planing, turning, screwing, cutting, and drilling. The construction of small machines for use in shops and laboratories.

SENIOR YEAR.

MECHANICAL ENGINEERING.—Three terms five hours per week. Lectures and recitations. Heating and ventilation, lubricants, study and design of high speed steam engines, complete power plants, valve gearing, and gasolene motors.

MECHANICAL ENGINEERING LABORATORY.—Three terms, two hours per week. Tests of pumping plant, air compressors, power plant, heating system; and various types of engines, separaters, and steam appliances.

SHOP WORK.—One term, two hours per week. Construction of machinery used in laboratory practices.

DRAWING.—Three terms, two hours per week. The course of instruction covers the design of standard engines and machinery used in commercial practice.

Equipment.

The equipment for carrying on the work of instruction is as follows:

The drawing rooms contain modern drawing tables, with drawing boards, T—squares, and lockers, to accommodate 60 students.

The wood-shop contains twenty double benches, with sets of tools for carpenter work, nineteen wood-turning lathes, with sets of turning tools' one jig saw, one double circular saw, band saw, and grindstone.

The forge shop contains twenty-four down draft forges, with modern tools for iron working.

The foundry is fitted with 26 cupola furnace, core oven, and the tools ordinarily used in foundry work.

The machine shop contains eight machine lathes, one large drill press, shaper, tool grinders, power hack saw, speed lathe, planer, and a large assortment of fine tools for machine work.

The engineering laboratory is equipped with steam engine indicators, planimeters, steam gauges, thermometers, calorimeters, water meters and several scales. It contains three gasolene engines, two steam engines, hydraulic ram, hot air engine, transverse testing machine, prony brakes, etc.

The equipment of the power house is also available foi this instruction. This includes one Harrisburg Compound High speed engine direct connected to a 40 K. W., generator. One McEwen 300 H. P., Compound Engine direct connected to a 75 K. W., dynamo. Two 125 H. P., tubular boilers. one 75 H. P., B. & W., water tube boiler. One 40 H. P. Hall air compresser, one 50 H. P., Adams engine, three duplex pumps, one fire pump.

PHYSICS AND ELECTRICAL ENGINEERING.

Physics is taught during the sophomore year to all students of the college. A general and practical knowledge of Elementary Physics is required. The course embraces, Mechanics, Heat Sound, Light, Electricity and Magnitism. Class room instruction occupies five hours a week for two terms. The Laboratory work is of especial importance in developing skill and accuracy, as well as a practical understanding of physical laws. The student is required to present an accurate and neatly written report of all experimental work; this work embraces all important physical laws and measurments as practiced in the leading schools of the country. The Laboratory occupies three rooms and is equipped with accurate apparatus for the work of the sophomore class and advanced students in Electrical Engineering; there is in addition all necessary apparatus for illustrating in a practical manner the subject as taught in the class room.

Electrical Engineering is taught to the junior and senior classes. This work offers a systematic course of study in the class room supplemented by laboratory work which develops a skill and confidence in operating as well as a knowledge of the construction and use of the best types of electrical apparatus and machinery. It is the object of the course to equip the student with a working knowledge of the subject· The courses in Electrical and Mechanical Engineering are common through the junior and half of the senior years and common in practical or laboratory instruction through the remainder of the senior year. Current Electrical literature is kept available and each graduate is required to present a thesis containing original investigation of some electrical subject.

MECHANICAL AND ELECTRICAL DIVISION.

Junior Class: A half term of five hours a week is given to the study of fundamental principles, two and a half terms of five hours a week to the general study of Electrical Engineering, leading to an understanding of the practical operations of continuous and alternating current dynamos and motors; systems of wiring, line constructions, tranformers, voltmeters, ammeters, wattmeters, ground detectors, lightning arrestors, photometry, switchboard connections, arc and incandescent lighting, underwriters rules, and the adapability of different electrical machines

Laboratory work: Three terms of two hours a week is given to practical applications of the class room work.

Chemical Divison. One term of five hours a week is devoted to the study of the principles and applications of electricity in industrial chemistry and such practical applications as can be made in this line.

Senior Class: Electrical and Mechanical Division. Five hours a week for the year is given to a more extended study of continuous and alternating current dynamos and motors, installations of power and lighting plants, characteristics, efficiency, tests, photometry, transformers, rotary converters, polyphase apparatus and wiring systems, induction motors, inductance, capacity, calibration of instruments, power transmission, traction, and the design of electrical machinery.

Laboratory work: Two hours a week for the year, is given to practical applications of the class room work.

Textile Division: Two hours a week for the year is given to the general subject of Electrical Engineering including theoretical and practical work leading to an understanding of the selection and operation of dynamos and motors, line construction, installations of wiring, and motor systems, incandescent and arc lighting, switchboard connections and the applications of electricity to textile industries.

Equipment: The Electrical Laboratory contains ten direct current and four alternating current machines, one rotary converter, seven special transformers, one direct and one alternating current machine under construction, a full set of brakes, dynamometers, direct and alternating current voltmeters, ammeters, and wattmeters. A station photometer with compound rotor and Heffner lamp, all standard incandescent lamps. Seven standard arc lamps, inductive and non-inductive resistance. This equipment is being added to by donation, purchase, and manufacture. This department controls the college lighting system and this and the motors of various college departments are available for test. The lighting system is operated from two 220 volt direct cennected units of 75 and 40 Kilowat capacity respectively.

GEOLOGY AND MINING ENGINEERING.

Professor.

Instruction in this department is given by means of lectures, text-books, and observations in the field and laboratory.

The following courses are taken by students who elect this branch of engineering as a specialty:

JUNIOR CLASS—Three terms, Geology.

SENIOR CLASS—Three terms, Geology and Mining Engineering.

All agricultural students and the civil, electrical, and mechanical engineering students are given one term of Geology according to the following outline: formation of soils by atmosphere, aqueous, organic and igneous agencies; the general form and structure of the earth; animal and plant remains, illustrated by charts. minerals, and fossils.

Text Book: Tarr's Geology.

All students who elect the special course in Chemistry are given two terms of Geology.

Textile Department

THE MISSISSIPPI TEXTILE SCHOOL.

J. T. BROADBENT, Acting Director.

This department was established in connection with the Agricultural and Mechanical College nearly three years ago with a view to giving students instruction in both theoretical and practical cotton manufacturing.

The Textile School building is a two story structure and has a fine architectural effect. the trimmings being of stone and terra cotta. It is of the slow burning construction type, which is generally recognized by all leading mill engineers as the most suitable for cotton mill work.

On the first floor are located recitation rooms, designing room, dyeing laboratory. chemical laboratory, power and hand loom weaving department, cloth room and finishing department, engine rooms gin room, etc. etc. The second floor is devoted to carding and spinning departments, and the warp preparation department.

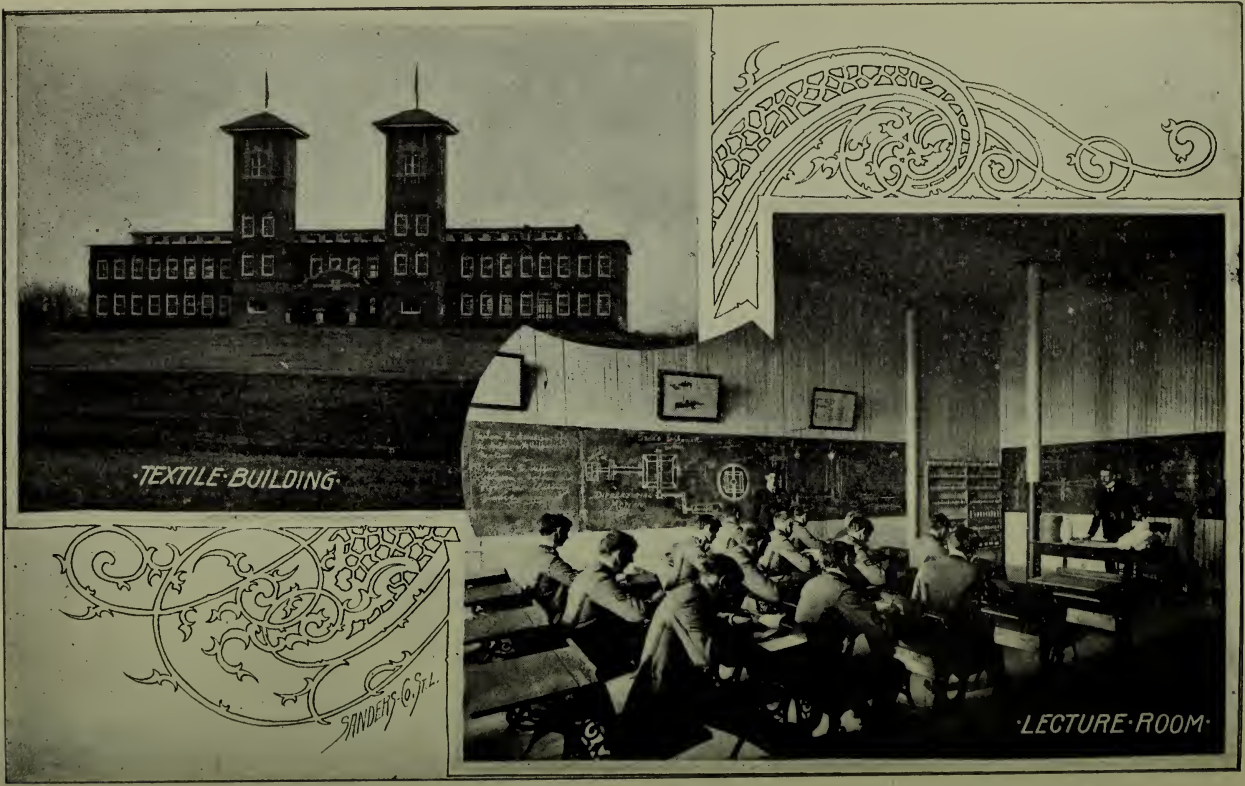
The instruction in the Textile department is divided into four sections which together are intended to cover the manufacture of all classes of cotton yarn and cloth including the dyeing and bleaching of the same. The theoretical instruction given in each of these sections is supplemented by practical operation of the various machines employed in the manufacture of cotton goods.

A brief outline of the processes and instruction covered by each section is given below.

Yarn Manufacturing.

J. T. BROADBENT and J. S. WIER, Instructors.

This department will cover the geographical position of the cotton fields of the world; the physical properties of cotton;


·TEXTILE·BUILDING·
·LECTURE·ROOM·
SANDERS-Co. St.L.

classes and counts of yarns for which each variety is suitable; results of faulty ginning and packing.

MIXING.—Objects of mixing cotton; rules governing the operation; methods of mixing; construction and operation of machines used in mixing; the mixing and blending of different varieties of cotton to produce certain classes of yarns.

PICKER ROOM.—Construction and operation of automatic feeders; breakers; intermediate and finisher pickers; accessory apparatus used in connection with these machines; speeds and settings of the different parts of the machines; evener motions —their object, and regulation, draft, speed, and production calculations.

CARDING.—Principles of carding cotton; stationary flat cards; roller cards; revolving top flat cards; principal characteristics of the various machines; function of the different parts; card settings; grinding, burnishing, stripping and cleaning; card clothing and its construction; regulation of waste; calculations for speed; draft and production; operation and cleaning of machines.

DRAWING.—Principles of drawing; object aimed at; the construction and operation of railway heads and drawframes; stop-motions adjustment and construction of common and metallic drawing or attenuating rolls; calculations for draft, speed, and production; cleaning and operating machines.

COMBING.—Objects of combing, construction and action of the various machines used; accessory appliances; the sliver lap machine; ribbon lap machine; combing machine; characteristics of different style machines; percentage of waste necessary for certain grades of yarns; setting of combers; cleaning and general adjustment; comber drafts, practical work on combers; the Monfordt comber, its advantages and disadvantages.

FLY FRAMES.—Method of producing rovings; general construction of slubbers, intermediates, roving and jack frames; explanation of the various mechanisms employed on different make of machines; the differential motion, its object; bobbin and flyer lead machines; stop motion; calculations for draft, twist, tension, speed and production; erection and operation of these machines.

SPINNING.—The construction and action of the ring frame; the mule and its adaptability to certain classes of yarns; the functions of the different parts of the machines; the effect of different drafts, twists and doublings on the quality of yarn produced; calculations for draft, speed, twist, production, etc.; standard twists; hosiery and doubling twists; setting rolls to suit the length of staple; comparison of the various spindles in common use; travelers — proper size for different counts conditions; building bobbins and cops; study of the special features of the mule; timing of the different movements; builder motion; cam shaft and scroll; quadrant; faulty spinning and methods of correcting same.

TWISTING.—Construction and object of twisters; wet and dry twisting; calculations on production; also, changing the gears for twisting different yarns.

Reeling, bundling and coning yarn.

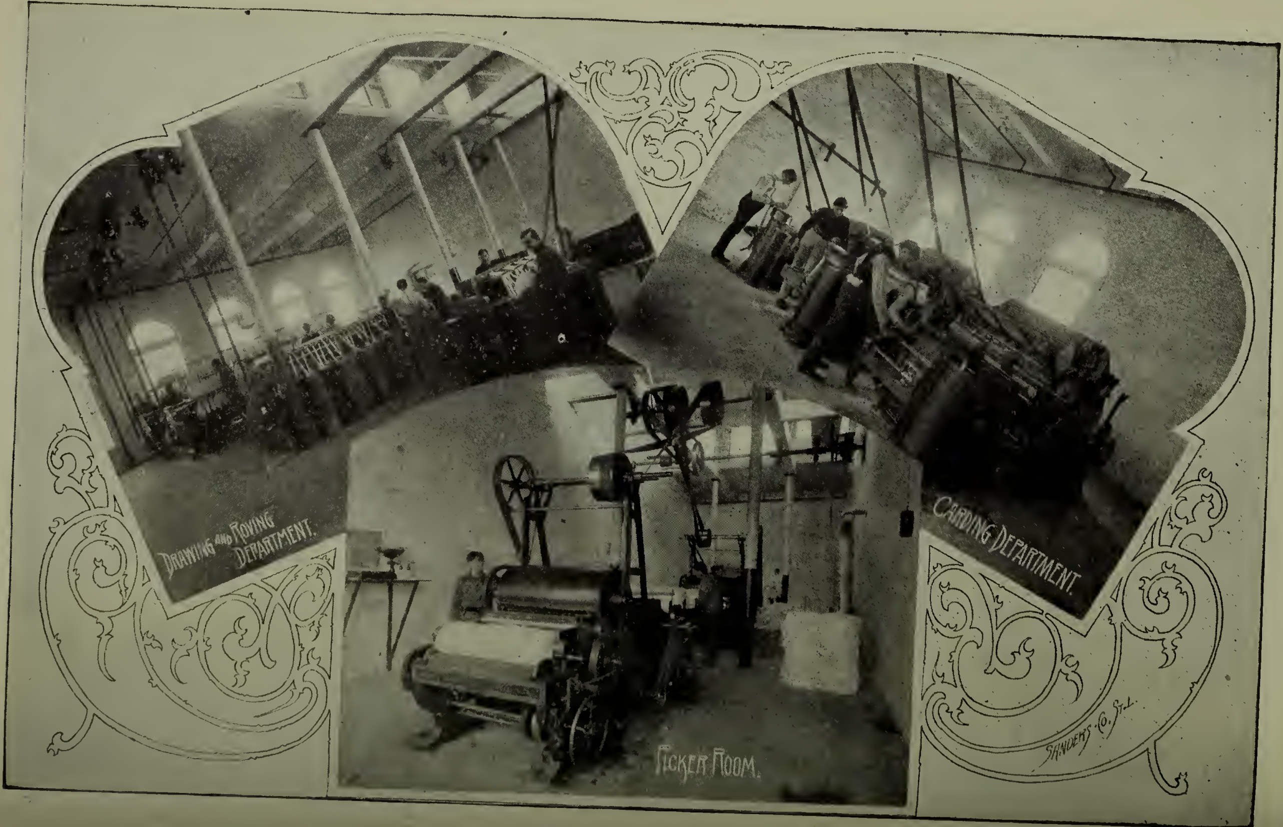
Warp Preparation and Weaving.

F. A. ABBOTT, Instructor.

This department is designed to give a student thorough, practical and theoretical instruction in preparing the yarn for the loom, and afterwards weaving it into plain and fancy cloth, including ginghams, sateens, pique, leno, corduroy, cords, jacquard, etc.

WARP PREPARATION.—The object, construction and adjusting of spools for winding yarn from cops, or bobbins; various methods of winding cones, tubes and cops; quilling machines; reels; beam and Denn warpers; electrical and mechanical stop motions: slashers—their operation and construction; sizing ingredients suitable for different grades and weights of cloth; size mixing; operation and adjustment of the above machines; calculations relating to speed, production, etc.

STUDY OF THE POWER LOOM.—How to start up plain and fancy cotton looms; adjustment and timing of the various


DRAWING AND ROVING DEPARTMENT.
CARDING DEPARTMENT.
PICKER ROOM.
SANDERS CO. ST.L.

motions; shedding and picking; let-off and take-up motions, both positive and negative; single box, drop box and circular box looms; automatic looms; magazine and shuttle changing looms; temples—various kinds and their uses; calculations for changes in the adjustment of the loom; harness cams and their construction; the reed—American and English systems of numbering the threads per inch; harness--the various kinds in general use and advantages or disadvantages of each; top roller motions; calculations for speed, production and construction of various grades of cloth; leno weaving; full doups and half doups; lappet and swivel weaving; weaving of Turkish and Terry towels; suitable looms for this class of goods; corduroy and cotton plush looms; bag and tubing looms; double and triple cloth looms; Jacquard weaving; construction of single lift, single cylinder, and double lift, double cylinder machines, various makes and styles; table damask and handkerchief Jacquards; tieing up Jacquards to suit various patterns, including straight, point and border ties; laying off comber board for a certain number of threads per inch, English and French systems; card cutting machines, lacing and repeating machines; weaving from designs.

Designing.

F. A. Abbott and C. B. Seal, Instructors.

The elementary course of designing will cover the classification of fabrics; methods of representing various weaves on designing paper; color effects in plain weave and twills; combination of weaves, including twills, satins, baskets, corkscrews, diagonals and spot effects; representation of drawing-in drafts, and harness chains on paper; calculations to determine the proper size of warp and filing to use with certain weaves, and amount required to produce a piece of goods. The above is supplemented by practical instruction on hand looms, where the student is required to put into practice the various designs included in the above instruction; and, is also given an opportunity of working out original designs.

This includes dressing and drawing-in warps, preparing the harness; building the harness chains, together with such work as will enable him to become familiar with the exact construction of the fabric, and the preparatory processes for producing same.

Advanced designing will cover the laying out and arrangement of the more difficult and elaborate designs, both original and otherwise; structure and design of two or three ply fabric; pile fabric; Jacquard designing; including lenos, damask, handkerchiefs, carpets, etc.; analysising cloth from small samples, with a view to reproducing same; card cutting, lacing, etc.

The instruction in advanced design will be supplemented by practical work on power looms, arranged to be consistent with the theoretical instruction as described above.

Textile, Chemistry and Dyeing.

L. CHAS. RAIFORD, Instructor.

The courses in textile, chemistry and dyeing are supplementary to the work in general chemistry pursued by all students in the sophomore year. They include a study of the general principles of organic chemistry with special reference to the coloring matters; the preparation of mordants and dyestuffs, and the application of the latter to the several textile fibers. The course is sufficiently broad to be a commentary on whatever preliminary training the student may have had, and to serve as a guide to operations on a commercial scale. The work is accomplished by means of lectures with experiments, written exercises, and individual laboratory work.

The instruction includes organic chemistry with special reference to the coloring matters. A series of graded exercises in the preparation and testing of organic compounds immediately related to the coloring matter, as well as the production of some of the typical colors themselves; the whole so selected as to fairly represent the processes made use of in the manufacture of what are known as the "coal tar" dyes.

PRACTICAL WORK ON POWER LOOMS.
WEAVING ORIGINAL DESIGNS ON HAND LOOMS.
WARP PREPARATION DEPT.
SANDERS-CO, St.L.

Instruction in the dyeing department will include the examination of the chemical and physical properties of various fibers; dyeing and bleaching of textile fabrics; purification of supply and refuse waters of dyehouses, bleacheries, etc.; preparation of mordants, color matching, etc.

The laboratory, in connection with the department, is appropriately fitted with work tables, each table being supplied with the proper arrangements for gas and water. A drawer and locker is also provided, in which the samples, etc., may be kept until examined by the instructor. The dyehouse is supplied with regulation dye vats, together with machines and appliances for dyeing larger quantities of material than those operated with in the laboratory.

SPECIAL COURSE IN TEXTILES.

A special Textile Course is offered to young men who wish to devote the whole of their time to the study of this subject. Instruction in this course covers the manufacture of cotton yarns, plain and fancy grade cotton cloths. This course, like the regular Textile Course, is supplemented by a course of lectures on the construction and operation of modern cotton mill plants; in this manner, covering as many of the smaller details as is possible, in the textile school. This course covers a period of two years, and is not accompanied by a degree or certificate. Further particulars regarding entrance requirements, etc., can be had upon application to the President of the College or Director of the Textile School.

Information pertaining to the Textile Course, is more fully explained in the Textile School Bulletin, which may be obtained by applying for same, to the President, or the Secretary of the A. & M. College; or, the Director of the Textile School, A. & M. College.

The following is a list of the textile papers at present being donated to the Textile Department:

S. & W. Textile Excelsior	Charlotte, N. C
Textile Mfrs. Journal	New York
Fibre and Fabric	Boston
Manufacturers' Record	Baltimore

Southern Manufacturer	Asheville
The Mill and Shop	Boston
Southern Farm Magazine	Baltimore
Canadian Journal of Fabrics	Toronto, Canada
Dyers' Bulletin	Philadelphia
The Tradesman	Chattanooga
Cotton	Atlanta
Textile Record	Philadelphia
Textile World	Boston
Wool and Cotton Reporter	Boston

Horticulture.

A. B. McKay, Professor and Station Horticulturist.

Instruction in this department is both theoretical and practical. Class-room instruction is given by text books and by lectures. In the gardens, greenhouses, orchards, and upon the campus and grounds, object lessons are presented the classes and work required which illustrate in a practical manner what is taught in the class-room.

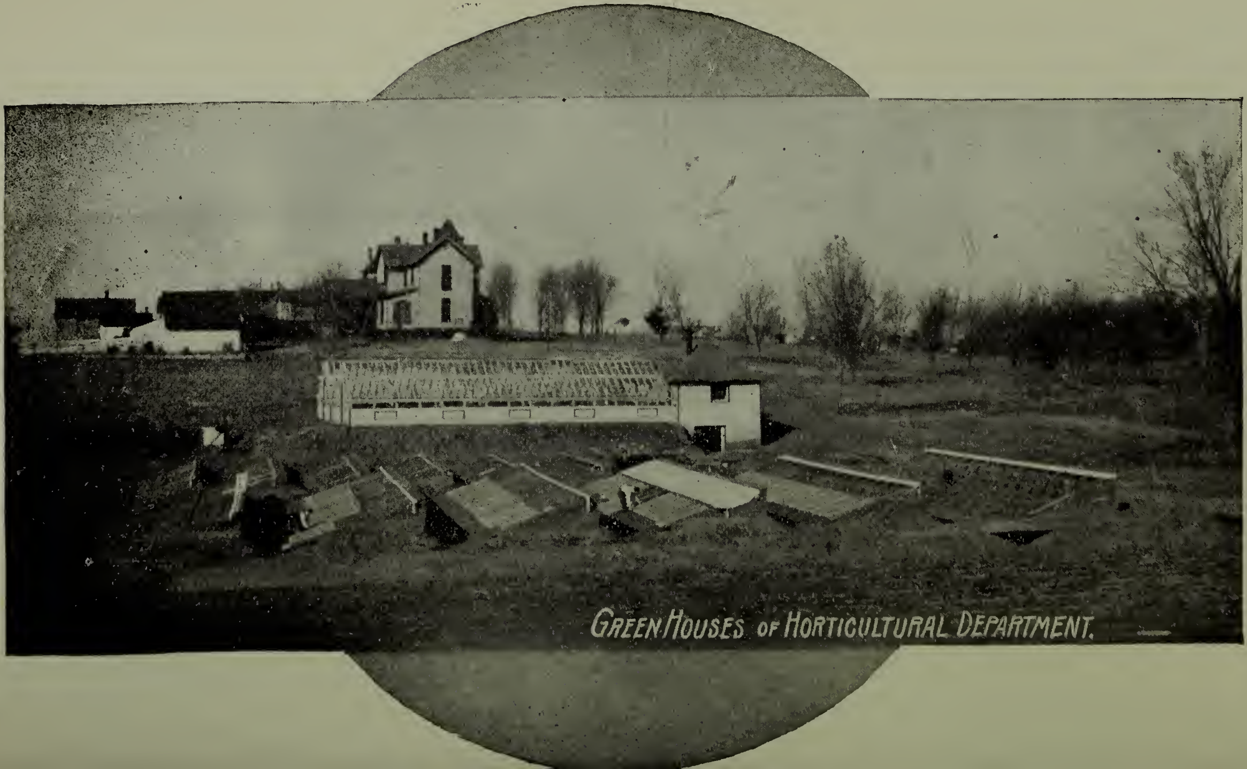
Freshman Class.—Each and every student attending the college devotes six weeks during his freshman year to the study of "The Home, Garden and Orchard." No matter what his profession or calling may be in after years, he should know how to grow an abundance of fruits and vegetables for home consumption.

At the beginning of the sophomore year students taking the Agricultural Course must specialize in one of the following departments: Agriculture, Horticulture, Dairy Husbandry, Veterinary Science, Agricultural Chemistry.

In addition to the general course of instruction (see elsewhere in this catalogue) students specializing in Horticulture consider, by classes, the following subjects:

SOPHOMORE.

Horticulture, *One Term.*—(a) The construction and



GREEN HOUSES OF HORTICULTURAL DEPARTMENT.

management of hot-beds, cold frames and green-houses; (b) the propagation of plants, trees and vines from seeds, layers, cuttings and grafts; (c) beautifying the home premises; (d) the nursery business; (e) seed growing and seed houses, etc.

AGRICULTURE, *One-half Term.*—(a) Soil fertility; (b) tillage; (c) lectures on kinds and uses of farm implements.

DAIRY HUSBANDRY, *One-half Term.*—Selection, management and care of the dairy cow.

MECHANICAL DEPARTMENT, *Each Saturday Forenoon During One Term.*—Farm mechanics; (b) water supply; (c) manipulation of pumps, wind-mills, hydraulic rams, etc.

JUNIOR.

HORTICULTURE, *One Term.*—Commercial Horticulture, or Truck Farming. Among the topics discussed under this subject are the following: (a) The selection of fruit and vegetable lands with reference to soil, labor, latitude and markets; (b) preparation and application of fertilizers, irrigation, rotation of garden and orchard crops with farm crops; (c) the best methods of gathering, packing and shipping horticultural products; (d) distribution, markets and merchants.

RURAL ENGINEERING.—Land surveying with chain; topographical surveying; road making; drainage, including hillside ditching, terracing, tiling, field practice, with surveying implements, leveling instrnments, etc.

VETERINARY SCIENCE, *One-half Term*—Common diseases of farm animals, and treatment.

SENIOR.

HORTICULTURE, *One Term.*—Forestry, Floriculture, Landscape Gardening.

BIOLOGY, *One-half Term*—Insect enemies and diseases of garden and orchard crops; how to apply fungicides and insecticides.

MATHEMATICS.—Rural engineering, including bridge construction and road making.

AGRICULTURE, *One-half Term.*—Feed, feeding and care of farm animals.

CHEMISTRY, *One and One-half Terms.*—Agricultural chemistry, or the analysis and the study of soils, feedstuffs, fertilizers and plants from a chemical standpoint.

A careful study of the subjects above outlined cannot fail to bring the student in closer touch and sympathy with nature. The more familiar the acquaintance with trees, vines, flowers and such other natural objects as are daily presented to the eye in the rural districts, and the better one's knowledge of how to deal with them in a practical way, the more attractive, the more fascinating, does country and village life become.

Dairy Husbandry.

J. S. MOORE,

ACTING PROFESSOR AND SUPERINTENDENT OF DEPARTMENT.

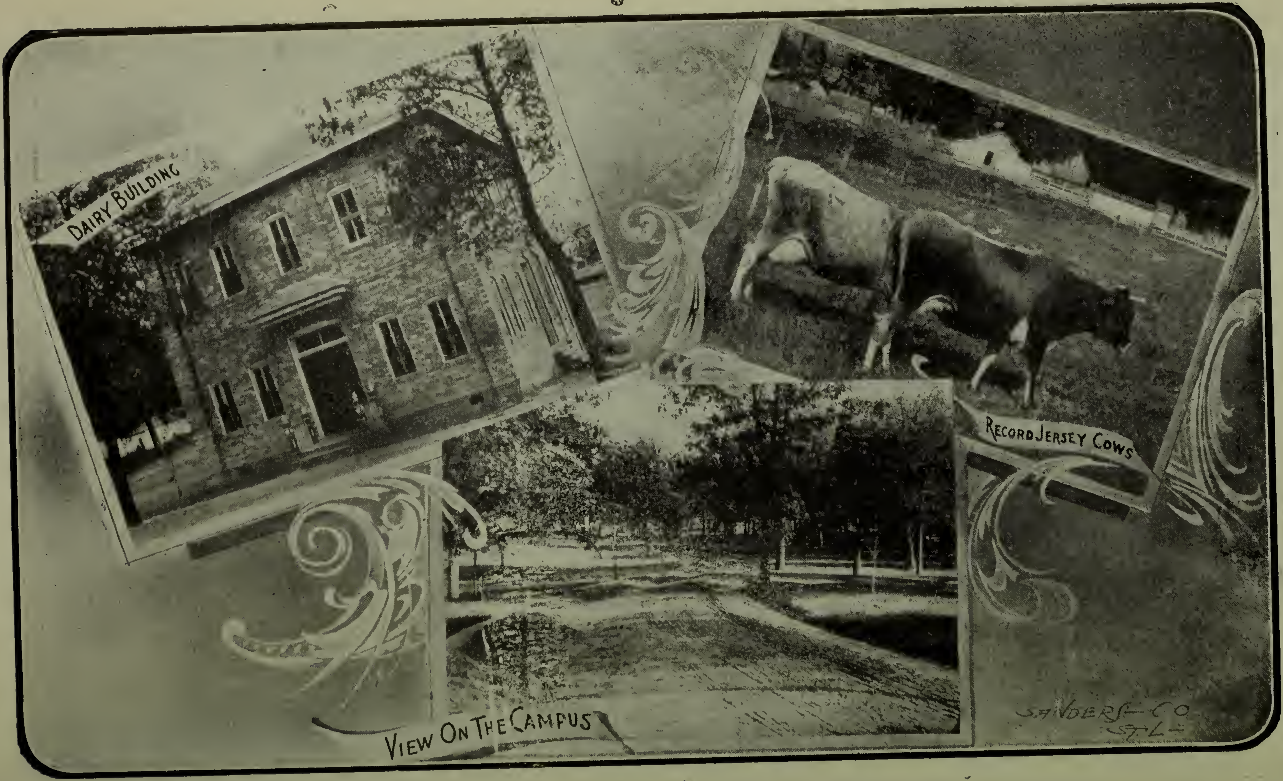
The object of the instruction in this department is to give the students the greatest knowledge of the science of dairying that can be obtained in the time devoted to this study. Instruction is both theoretical and practical. The theory is given by lectures, text books, and experiments. Practical work is given in the farm dairy, the creamery, and in the dairy barns.

FRESHMAN YEAR.—Practical instruction, two hours a week for two terms, is given to the entire freshman class on the home dairy and how to make it profitable.

At the beginning of the sophomore year every student is required to select one industrial subject as a specialty, the remainder of the course being the same for all. For a complete list of studies, the student is referred to the general course of study as found in this catalogue.

Students taking the agricultural course may select a special subject in any one of the following industrial departments: Agriculture, dairy husbandry, horticulture, veterinary science, or chemistry.

Those taking dairy husbandry will get the following industrial subjects:


DAIRY BUILDING
RECORD JERSEY COWS
VIEW ON THE CAMPUS
SANDERS CO
ST L

SOPHOMORE YEAR, (DAIRYING) *One Term.*—Lectures are given on the selection, feed, and care of the dairy cow during half of the term, and "Milk and Its Products" is used as a text book for one-half of the term. Four hours a week for two terms are devoted to practical work in selecting and feeding the dairy cow, and four hours a week for one term to practical work in the care and management of milk and its products.

AGRICULTURE, *half term.*—Care, feed, and management of cattle, sheep, and swine.

HORTICULTURE, *half term.*—Lectures on the home, garden and orchard; the most desirable crops to grow and how best to grow them.

VETERINARY SCIENCE, *half term.*—Lectures on the conformation of the dairy cow; the most common diseases to which she is subject, their prevention and treatment.

JUNIOR YEAR, (DAIRYING), *one term.*—"Testing Milk and Its Products" is used as a text book during the first half of the term, and "Dairy Bacteriology" during the last half. Both are supplemented by lectures.

Practical work, four hours a week for the entire session, is given on the use of the different makes of testers, methods of separation, influence of certain conditions on the ripening and churning of cream, etc.

AGRICULTURE, *half term.*—Lectures on the care and management of horses and mules.

VETERINARY SCIENCE, *half term.*—The study of the diseases of live stock is continued from the sophomore year.

SENIOR YEAR, (DAIRYING) *two terms.*—One term is devoted to a study of feeds and feeding from a scientific standpoint, with special reference to the dairy cow. (Text book, "Henry's Feeds and Feeding.") Lectures are given for one term on the manufacture of cheese.

Practical work, four hours a week for two terms, is devoted to the subject of feeds and to research work, and seven hours a week for one term to the making, of cheese.

AGRICULTURAL CHEMISTRY, *one term.*—One and a half terms in the sophomore and one term in the junior year are given in chemistry to prepare the student to do the work required in agricultural chemistry in the senior year. A study is made of the chemical analysis of feeds and of milk and its products and the detection of adulterants in milk, butter and cheese.

Practical work, four hours a week for one term in the chemical laboratory, is required in connection with the above studies.

EQUIPMENT.—The dairy department is now fitted up with everything needed for successful dairy and creamery work, including the leading makes of testers, separators, churns, butter workers, and other machinery. A herd of one hundred dairy cows is also under the supervision of this department, and is used to illustrate by actual practice the theories taught in the class-room in regard to the selection, feeding, and handling of dairy animals.

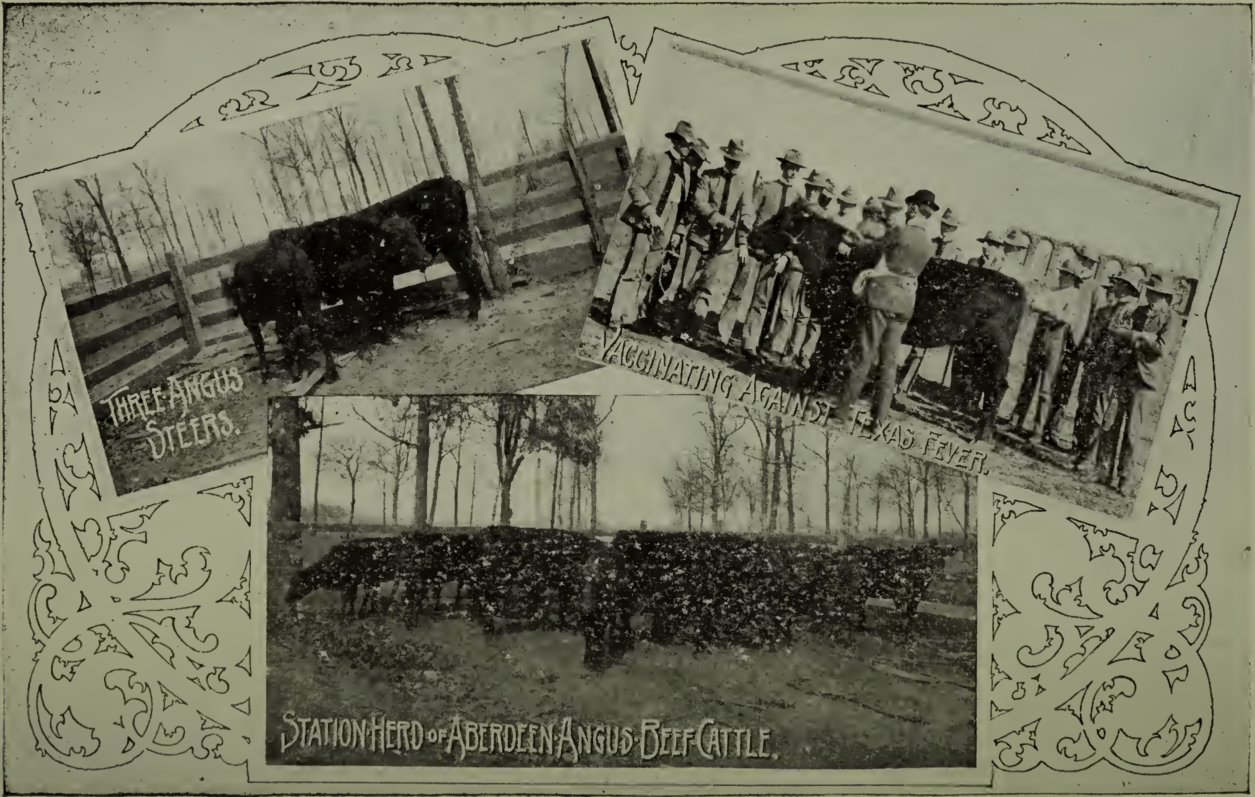
Veterinary Science and Human Anatomy and Physiology.

J. C. ROBERT, Professor.

Instruction in this department is given by recitation from text-books, dissections, laboratory work, lectures, and clinics.

HUMAN ANATOMY AND PHYSIOLOGY, *Freshman Class, third term.*—Students in this class study anatomy and physiology for one term. Walker's Anatomy, Physiology, and Hygiene is used as a text-book for class-room instruction. This is supplemented by lectures on comparative anatomy as a basis for the work in veterinary science in the upper classes, and is illustrated by skeletons, manikins, and charts. Foster and Langley's Practical Physiology is used as a guide for laboratory work.

VETERINARY SCIENCE.—All students who take the agricultural course are instructed in veterinary science. The time



THREE ANGUS STEERS.

VACCINATING AGAINST TEXAS FEVER.

STATION HERD OF ABERDEEN ANGUS BEEF CATTLE.

allowed for the study of this subject is limited; hence the student can acquire little more than an elementary idea of the common diseases of farm animals and their treatment, with a practical consideration of such operations as render them more serviceable to man. It is not the object to turn out professional veterinarians, as that would be impracticable with the time allotted to the department and the limited equipment and teaching force. The aim of this work is to be of practical benefit to the prospective stock owner. It includes instruction as to the care and management of farm animals, with particular reference to the most common diseases and operations.

Those students pursuing the agricultural course who elect veterinary science as their major subject receive the following instruction from the veterinary department, viz.:

SOPHOMORE CLASS, *one term.*—The first half of this course is occupied in studying a few of the most common non-infectious diseases that occur on the farm, and in a practical consideration of the operations most likely to be needed upon a plantation. Such diseases as colic, founder, corns and spavin are studied, and the proper method of castration and spaying is discussed. These diseases and operations will be treated practically as they appear in weekly clinics.

The last half of this term is occupied in studying a few of the infectious diseases of domestic animals. Special attention is paid to tuberculosis, charbon, glanders and Texas fever, and the manner of preventing and suppressing these diseases.

JUNIOR CLASS, *one and one-half terms.*—The cause, symptoms, and treatment of the most common non-infectious and infectious diseases found in live stock are discussed. The origin, nature, diffusion, reception, and mode of access of infectious material to the body are studied. The nature and use of such diagnostic agents as mallein (the glanders test) and tuberculin (for tuberculosis) are taught, and special attention is paid to the prevention and suppression of contagious diseases.

SENIOR CLASS, *one and one-half terms.*—The first part of this work is devoted to the study of sanitation. The relation existing between an animal and its surroundings, and the influence of ventilation, drainage, and location of barns on health are discussed. The germ theory of disease is considered, and the presence of micro-organisms in decayed animal and vegetable matter and diseased tissue is shown by the use of the microscope. Disinfection and disinfectants are taught, and, later, attention paid to general pathology, veterinary surgery and obstetrics. The proper treatment of wounds, diseases following wound infection, fractures, etc , are studied. Lameness of the horse and examination of the horse for soundness or purchase are given special attention.

LABORATORY WORK.—The College has equipped a physiological laboratory, where the student in anatomy and phsiology can study such subjects as the action of the digestive juices. The relation the nervous system sustains to the motor apparatus is demonstrated by experiments. The laboratory is also partially equipped for work in histology. The necessary apparatus and re-agents for hardening, staining, and cutting tissues are present. In this way the elementary structure of the various organs and tissues of the body, as the heart, the lung, bone, tissue, blood cells, etc., is studied.

CLINICAL INSTRUCTION.—For two hours on one day of every week during the whole college year all diseased animals brought to the College are treated free of cost to the owner., In this way an abundance of material is obtained for practical instruction, and the student learns from observation of the symptoms of each disease, the treatment indicated, and the method of administering medicine. For conducting this partial instruction, the College has erected a clinic building, which has a large operating room, containing a veterinary operating table and the necessary instruments and drugs. Stalls for sick animals adjoin the operating room.

The following outline will show the agricultural work done by students specializing in the veterinary department:

SOPHOMORE CLASS, *first term.*—General chemistry, horticulture, six weeks. agriculture, six weeks. *Second term*—Chemistry, six weeks; dairying, six weeks. *Third term*—Veterinary science. Seven hours per week, in the afternoons, during the entire session, is devoted to clinics, laboratory work, dissection and other practical work.

JUNIOR CLASS, *first term.*—Veterinary science and botany. *Second term.*—Qualitative analysis and zoology. *Third term.*—Veterinary science, six weeks; agriculture, six weeks. Afternoon work as in the sophomore class.

SENIOR CLASS, *first term.*—Agricultural chemistry; entomology. *Second term.*—Veterinary science, six weeks; agricultural engineering, six weeks; botany, six weeks; dairying, six weeks. *Third term.*—Veterinary science, botany. Seven hours per week each afternoon of the entire session is devoted to practical work in the veterinary department.

Chemistry.

W. F. HAND, Professor.

The course in chemistry as now organized is outlined under the following subject heads:

1. General Inorganic Chemistry.
2. Organic Chemistry.
3. Analytical Chemistry, Qualitative.
4. Analytical Chemistry, Quantitative.
5. Agricultural Chemistry.
6. Industrial Chemistry.

In addition to the above elementary courses for undergraduates, the chemical department offers more advanced work in organic, analytical and agricultural chemistry as major and minor for the M. S. degree.

Those students electing the groups of studies included by the regular chemical course spend at least nine hours per week in the laboratories throughout the sophomore, junior and senior years. About half of this time is spent in practical laboratory work.

1. GENERAL INORGANIC CHEMISTRY.—All regular students of the College are required to take this course. Those electing work in Chemistry and in Textiles spend nine hours per week in the laboratory and lecture-room. The work embraces an

elementary discussion of the principles of chemistry and a laboratory course of experimental work. The lectures are illustrated by numerous experiments. As a general rule, the more difficult experiments are performed by the instructor, and those requiring simpler apparatus are made by the students themselves.

In the laboratory properties of the more common and important elements and compounds are studied as fully as the time and general equipment of the student will permit. The laboratory itself is well fitted. Each student is assigned a desk, which is supplied with gas, water, exhaust, and a set of apparatus for his individual use. A faithful performance of the practical work is required.

Text Book: Remsen's Introduction to the Study of Chemistry and Remsen's Chemical Experiments.

Required of all regular Sophomores.

II. ORGANIC CHEMISTRY.—Two courses of instruction in organic chemistry are offered. The elementary course deals most largely with aliphatic bodies, though the more important carbocyclic compounds receive attention in the lectures. Organic compounds of special interest and importance in agriculture and the industries are also discussed somewhat in detail. There are five lectures and four hours laboratory work each week throughout the term. Students prepare in the laboratory, so far as the time will allow, representatives of important classes of organic compounds, including the hydrocarbons, alcohols, aldehydes, esters and acids. About one-half of the time given to this work is spent in the laboratory.

Required of Agricultural Juniors.

III. ORGANIC CHEMISTRY.—This course is intended primarily for regular students electing special work in chemistry, The subject is taken up in a systematic way and the lectures, recitations, and laboratory work extend through two terms. The time is about equally divided between fatty and aromatic compounds. Organic substances of special importance are studied as fully as the time will allow. An effort is made to bring out clearly the *relation* between classes of compound.

The laboratory work is somewhat more extended than that of course II. Students prepare and study properties of quite a

Thomas [illegible] [illegible]

TO THOSE

WHO INTEND TO BECOME STUDENTS

—OF THE—

Mississippi A. AND M. College

THE YOUNG MEN'S CHRISTIAN ASSOCIATION has appointed a New Students' Committee, whose duty it is to meet all trains at the opening of school, to give you all the information you may desire concerning the College, and, in fact, to aid you in any way they can. All the members of the Association are your friends, and you may feel free to call upon them at any time that they can render you assistance.

The first meeting of the Association for next session will be held on the First Sunday evening after school opens, and you are cordially invited to be present.

R. H. PURNELL,
A. B. REESE,
T. V. RUSH,
C. E. GARNER.
} Executive Com. of Y. M. C. A.

number of selected compounds. These preparations must be carefully purified before they are accepted by the instructor.

Required of all students electing the course of chemistry.

Text Books: Remsen's Introduction to the study of the Compounds of Carbon, Gattermann's Practical Methods of Organic Chemistry.

IV. ANALYTICAL CHEMISTRY, QUALITATIVE.—Some attention is given to qualitative analysis in connection with the experimental work in general inorganic chemistry. The course embraces an elementary discussion of solutions and reactions and the separation and identification of the various acids and bases. Special attention is given to the *chemistry* involved in the analytical processes, and an effort is made to guard against the mere mechanical performance of these processes. One term of nine hours per week is allowed for this work.

Text Book: Seller's Qualitative Analysis.

Required of all students taking the course in chemistry

V. ANALYTICAL CHEMISTRY, QUANTITATIVE.—Systematic work in quantitative analysis is taken up after the completion of course IV. Lectures are given upon the care and use of the balance and the graduation and calibration of burettes, pipettes, flasks, and other measuring instruments. It is, of course, necessary for the beginner to work upon pure salts of known composition, and, after some practice in this way, more difficult separations and estimations may be undertaken. Each student works independently and only reasonably accurate results can be accepted.

The quantitative laboratory is well equipped. All apparatus and chemicals needed in the work are supplied from the laboratory store-room, and breakage is charged to the student at actual cost.

Text Books:—Newth's Quantitative Analysis may be used. Standard reference books and journals may be obtained from the department library.

Required of students electing the course in chemistry

VI. INDUSTRIAL CHEMISTRY. The course in industrial chemistry includes a discussion of the principles of chemistry as applied to the arts and manufactures. The time devoted to the study of this subject is nine hours a week for one term. Among the subjects usually discussed in an elementary way, the following may be mentioned: Natural waters, their composition, purification and adaptability for domestic and various industrial uses, sulphur, sulphuric acid, nitric acid, hydrochloric acid, chlorine and bleaching powder, common salt, the soda industries, potash salts, lime, mortar cement, earthwate, phosphorus and matches, bromine, iodine, soaps, petroleum products, vegetable oils, turpentine, and rosin.

The laboratory work consists in the preparation of pure chemicals from crude materials and general practice in chemical manipulation. A few industrial processes that can be carried out on a small scale in the laboratory are also taken up. The manufacture of sulphuric acid and of crude acid phosphate are subjects of special discussion and work.

Text Book: Thorp's Outlines of Industrial Chemistry.

Required of all regular students in the Agricultural course and of those electing the course in chemistry

VII. AGRICULTURAL CHEMISTRY.—The work embraced in this course consists of a discussion of the application of the principles of chemistry to practical agriculture. There are five lectures and recitations a week for one term. The following subjects receive detailed consideration: Composition of soils, special soil types of the State, fixation, the action of special manures; the source, use, and application of potassic, phosphatic and nitrogenous manures, lime and gypsum; the relation of the composition of food to that of the manure from farm animals; the function and conservation of the humus of the soil; the use of leguminous crops and green manures and rotation.

Text Book: Storer's Agriculture in Some of Its Relations to Chemistry. Use may be made also of bulletins of the Experiment Stations dealing with special subjects.

Required of all regular students taking the course in agriculture

LIBRARY.—The library of the chemical department contains sets of the bulletins of the experiment stations and publications of the various bureaus of the department of Agriculture. Standard reference books relating to the various branches of pure and applied chemistry and partial and complete sets of important chemical journals are also available. The more important American, English and German journals are received regularly.

MUSEUM OF INDUSTRIAL CHEMISTRY.--The department is now engaged in making collections of raw materials and manufactured products for the museum. Quite a number of specimens have been obtained and additions are being made constantly. This material is available for use in lecture room and laboratory work.

Biology.

GLENN W. HERRICK, Professor.

Instruction in this department is given according to the following courses, which are arranged as far as possible to meet the needs of industrial students.

FRESHMAN CLASS, *third term.*--Botany. The work of this class consists largely of structural botany together with the principles of classification. It aims to give the student a knowledge of plant growth that he may deal intelligently with agricultural crops. The student watches in the laboratory the actual germination of seed under various conditions, noting the phases of development through which the seed passes to be transformed into a plant. Then the different organs of the plant are taken up, each in turn carefully drawn. Finally a few of the plants important to agriculture are classified.

Text book: Elementary Botany, Bailey.

JUNIOR CLASS, AGRICULTURAL COURSE, *second term.*—Zoology. Some time is spent in a comparative study of the development and variation of the different organs of animals and their various functions. After the student has grasped the structural relationship existing between the organs of the simpler and more complex animals, he is led to a systematic view of the animal kingdom. The instruction is by lectures, charts and specimens.

One afternoon each week is given to the study of certain sea forms and such fresh water forms as it is possible to obtain. The laboratory work is confined to the invertebrate forms.

JUNIOR CLASS, AGRICULTURAL COURSE, *first term*.—Botany. Enough of the minute structure of plants is given during the first part of the term to afford the student a proper foundation for the physiology of plants which follows, occupying the greater part of the course. The student becomes familiar, by the use of the microscope, with the principal tissues and tissue-systems of plants, also chlorophyl, starch, grains, etc.

Illustrative experiments in simple plant physiology, are made by the students in the laboratory.

Instruction is given by lectures and observations in the laboratory.

SENIOR CLASS, AGRICULTURAL COURSE, *second term*.—Botany. As a continuation of the course in plant physiology, the senior class, agricultural division, is given one half term's instruction in the morphology, development, and life histories of typical forms of the lower plants, such as fungi, algæ, mosses, ferns etc. Special attention is given to the economic species of fungi.

One afternoon each week during the half term is given to this work in the laboratory.

SENIOR CLASS, AGRICULTURAL COURSE, *first term*.—Entomology. The student first becomes familiar with the external anatomy of the grasshopper, and with the life history and metamorphosis of some typical insect. Then he is given a systematic view of the insects as a whole, paying special attention to insects injurious to vegetation and to methods of combating them. The work is illustrated by specimens.

One afternoon a week is given to the study of typical insects illustrating the different orders.

SENIOR CLASS, AGRICULTURAL COURSE, *second term*.—Diseases of plants. The class spends a term in the study of the diseases of plants, especially economic plants. A careful study of the parasite and its effect on the host is made. This work is followed by a discussion of the best known remedies.

The practical work in the laboratory and field will aid in giving a clearer idea of the diseases by actual contact with them.

English.

W. H. MAGRUDER, Professor.
F. J. WEDDELL, Associate. R. H. LEAVELL, Assistant.

The object of this department is to give the student a practical knowledge of English, and, with such knowledge, the liberal culture that must follow a close study of language. To this end it proposes:

1. To give (a) a critical knowledge of our vernacular in its grammatical and idiomatic constructions; to give (b) a general knowledge of its etymological history and its kinship to other languages; and to give (c) as full a knowledge of its literature and the history of its literature as can be acquired in the very limited time allowed for this study.

2. To teach the canons of literary criticism deduced from the study of some of the world's best books.

3. To give such facilities in composition, both written and oral, as the natural ability of the student makes possible.

To accomplish the purposes outlined above, the following work is announced:

Freshman Class, *three terms.*—Forenoon work, one term, five hours a week, is devoted to the study of English words (etymology); forenoon work, two terms, five hours a week, to the study, of English composition (elementary rhetoric).

Sophomore Class, *three terms.*—Forenoon work, two terms, five hours a week, is devoted to advanced rhetoric (criticism); forenoon work, one term, to the history of American literature.

Junior Class, *three terms.*—Forenoon work, two terms, five hours a week for the agricultural and mechanical divisions and four hours a week for the textile division, is devoted to the study of the history of English and universal literature; forenoon work, one term, to a critical study of several American or English classics.

Senior Class, *three terms.*—Afternoon work, two hours a week, is devoted to a critical study of a few masterpieces of literature.

ADDRESSES, THEMES, ESSAYS.—With the third term of the freshman year is begun the composing of formal papers, the first being a discussion of one of the three industrial courses from which the student is to select his sophomore, junior, and senior work. Each member of the sophomore class prepares exercises, essays, and addresses, on assigned subjects; each junior prepares three addresses on industrial and scientific subjects and delivers them before the faculty and corps of students; and every senior delivers in public three addresses on subjects of his own selection, two of these being approved, however, by the professor in whose department the theme falls.

In each class, exercises, themes, and essays on subjects assigned for investigation are called for at the discretion of the instructor.

Mathematics.

B. M. WALKER, Professor; C. R. STARK, Instructor;
A. M. MAXWELL, Instructor in Book-Keeping.

The object of this department is to furnish thorough and practical instruction in the pure and applied mathematics which it embraces.

FRESHMAN CLASS, *three terms.*—Algebra is studied the first and second terms, geometry the third term.

Text-Books—Wentworth's Higher Algebra and Wentworth's New Plane and Solid Geometry.

BOOK-KEEPING.—The freshman class is given a course in book-keeping and banking for a term of three months. The instruction is thoroughly practical and fits one to take charge of any ordinary set of books.

SOPHOMORE CLASS, *Three terms:*—Geometry is completed the first term, advanced Algebra the second term. The engineering and chemistry students complete trigonometry the third term.

JUNIOR CLASS, *three terms*—The engineering and chemistry studies take analytic geometry the first term, differential calculus the second term, and integral calculus the third term. The agricultural and textile students take trigonometry the first term.

SENIOR CLASS, *two terms*—Engineering and chemistry students take analytic mechanics and astronomy two terms. Agricultural students take elementary mechanics and astronomy two terms. Textile students take elementary mechanics one term.

Military Science and Tactics.

I. D. SESSUMS, ACTING PROFESSOR.

The course of instruction in this department is both theoretical and practical.

Theoretical instruction is given the senior class by recitations in the Infantry Drill Regulations and Guard Manual, United States Army, and by lectures on the organization and administration of armies, the *material* of war, and the elementary principles of the art of war. Students are required to prepare in the class-room the usual reports and returns pertaining to a company.

Practical instruction is given in Artillery and Infantry Drill Regulations.

In artillery drill regulation the sophomore class receives instruction during the third term in the service, mechanical manoeuvers, etc., of the field piece.

In infantry drill regulations the instruction for all the classes continues from the opening of the session until close of the session. The course of drills covers the schools of the soldier; company, and battalion in close order; the squad, platoon, company, and batallion in extended order; ceremonies, guard duty, small arms, target practice, etc.

For the above practical instruction the college is provided with 300 Springfield Cadet Rifles and infantry accoutrements, and with a liberal allowance of ball and blank cartridges for small arms and blank cartridges for field pieces.

For purposes of discipline and for practical instruction, the student body is organized as a batallion of infantry of five companies with major and regular commissioned and non-commissioned staff. The officers and non-commissioned officers of the battalion are appointed from those students who have been most active and soldier-like in the performance of their duties, and most exemplary in their general deportment; due regard being had for academic standing and for length of service in the battalion.

The battalion is under the immediate command of the commandant of students, who is the professor of military science and tactics. The students are at all times under military control, and are thus taught habits of promptness and regularity, and of obedience to lawful authority; at the same time they become accustomed to the proper exercise of authority over others.

History and Civics.

J. M. WHITE, PROFESSOR.

Instruction is given in this department by means of text books, supplemented by lectures. Much collateral reading is required, upon which class discussions are had and oral and written reports are made.

The assignment is as follows: The freshmen take English history, one term, five hours a week; the agricultural and mechanical sophomores, general history, one term, five hours a week; the textile sophomores, general history, one term, five hours a week; the agricultural and mechanical juniors, civil government, one term, five hours a week; Agricultural juniors American history, one term, five hours a week; the textile juniors, political economy and civil government, one term, four hours a week; the agricultural and mechanical seniors, political economy, one term; five hours a week, and psychology and ethics, one term, five hours a week.

ENGLISH HISTORY.—In the study of this subject attention is directed to the general development of the English people, and to the great cost in treasure and blood of both civil and religious liberty. The facts are studied with a view to tracing causes and relations. Emphasis is given to points connected with our own history and institutions.

GENERAL HISTORY.—The time allotted to this subject is too short to engage, to any great extent, in special historical investigation, but ample opportunity is given for the student to get a fair grasp of the main course of human events. The aim is to give stimulus to further reading and a general foundation for historical knowledge.

CIVIL GOVERNMENT.—The object kept constantly in view in the teaching of this subject is that it is a training for citizenship, and to this end the origin, history, growth, and development of our governmental institutions receive attention; the constitution of Mississippi is read, and as close a study of the constitution of the United States is made as circumstances will permit. The collateral reading in this work is confined to American history between the dates of 1763 and 1789.

AMERICAN HISTORY.—The course in civil Government is followed, in the agricultural junior class, by a course in American history between the dates of 1789 and 1889, or the first hundred years of our history under the Federal constitution. The establishment of the new government, the current of events leading up to the Civil War, the Civil War period, the Reconstruction period, and later chief events are all studied in detail.

POLITICAL ECONOMY—The purpose in the teaching of this subject is to give a fairly comprehensive view of the field of economics. The elements of production, exchange, distribution and consumption are studied. The economics of the industries are emphasized by extended papers and collateral reading.

PSYCHOLOGY AND ETHICS.—The agricultural and engineering seniors take these subjects the third term, psychology the first half of the term and ethics the second half. The work embraces the elementary essentials, and while the time is too short to make extensive research into these subjects, enough is done to make their study highly profitable. The department is fairly well supplied with maps, charts and reference books.

Preparatory Department.

J. C. HERBERT, Professor in Charge.

This department owes its existence to the act of the State Legislature by which the College itself was established and organized. It is designed to furnish a thorough elementary education to young men, particularly sons of farmers, who are deprived of the advantages of a good high school near their home; also, to prepare for the freshman class such as desire to take the college course.

Course of Study.—The course of study is intended as a one year course and includes the following: Agriculture, Algebra, Arithmetic, Business Forms and Book-keeping, Drawing, English Grammar and Composition, Geography, History of United States, Horticulture, and Reading. The scope of the work in each of the above mentioned subjects, and the time allotted to each is given in the following outline:

Algebra—All preparatory students who can complete the course of the department in one year are given elementary algebra during the entire third term, (four hours a week); text book, Wentworth's First Steps in Algebra.

Agriculture and Horticulture.—In these subjects the work is necessarily of an elementary character. The work of the text book, McBryde's Elements of Agriculture, is supplemented by lectures and object lessons under the immediate supervision of the professors of agriculture and horticulture. The purpose of the course in these branches is to give the student such practical information concerning farms, gardens, and orchards, as are of interest to every man, and, at the same time, to begin science work, so that the student will be better fitted for the work in science which is such a prominent part of his college course. The time devoted to this work is three months, one hour a day, and is equally divided between agriculture and horticulture.

Arithmetic.—Particular stress is laid upon the business portions of arithmetic, percentage, partnership, etc., preparatory to the study of book-keeping during the last term. Book-keeping is taught through single entry only, the study being completed in freshman year. Every student in the department is required to take arithmetic (one hour a day) during the entire session. The text book now in use is Milne's Standard Arithmetic.

Business Forms and Book-keeping—Every student in the department is expected to devote one hour a day for six months to this study. The work consists in familiarizing the student with the ordinary business forms; such as, bills, notes, accounts, etc., and a regular course in single entry book-keeping.

Drawing.—All preparatory students are required to devote one hour a day during a term of three months to free hand drawing.

English Grammar and Composition.—One hour a day during the entire session is devoted to the study of grammar and composition. Special attention is paid to composition writing by the students in order that thereby they may acquire a correct and ready use of the English language; exercises in dictation, punctuation, use of capitals, paraphrasing and reproduction, together with the writing of letters, business forms, short essays and biographical sketches, are main features of this line of work.

The text book is Hyde's Language Lessons, Book Two.

Geography.—In the study of geography the student for the first term begins a "nature study." The teaching of this subject is intended to be along the line recommended by the Committee of Ten. By this teaching, geography is given a broader scope than was comprised in the old definitions. The pupil is taught not merely to locate the grand divisions of the earth, to tell where things are, but is also taught why they are so. Considered in this light, geography, comprising position, soil, climate, natural resources and general physical conditions, is shown to the pupil as having a broad scope, and of vast importance.

The text book used is Fry's Grammar School Geography.

History of the United States.—The principal aim in teaching the history of our country is to give the pupil an insight into the real treasures of history, to create a taste for reading wholesome literature. The pupils are required to learn the leading facts and dates; after this, the work takes a broader scope, and considerable time is spent in studying the lives of great historic characters, in learning of the manners and customs, of the government, of the general civilization and progress during the different historic epochs of the country.

The text book used is, Our Country, by Cooper, Estill and Lemmon·

Reading.—All preparatory students are required to take reading, five hours a week for six months.

Entrance requirements.—It is not the policy of the department to admit students who have the advantages of high schools at home. Such young men as have high school advantages at home are advised to remain at home for their preparatory work.

The number of preparatory students is determined each year by the number that can be accommodated in the dormitory in excess of those in the regular college classes.

Students who enter this department expecting to do the work of the course and be prepared for the freshman class in one year, are required on entering to pass examinations as follows: To percentage in arithmetic, to be able to read, spell, and write with intelligence and ease; through the parts of speech in grammar, with some knowledge of the proper use of captitals; and the simple requirements in punctuation, the elements of geography and United States history.

For other general admission requirements, see "Conditions of Admission" in this catalogue.

Experiment Station.

W. L. HUTCHINSON, DIRECTOR.

BUILDINGS--The office building of the station is a two story structure with eight rooms. A part of the College laboratory building is used for chemical work, while the two story creamery building is used jointly by the College and station. The main barn, used for teams and storing crops, is twenty-six by one hundred feet. Other buildings are a two-story barn for the dairy cattle, a barn for the beef cattle, a barn for the sheep, and one for the team of mules used on the campus and for hauling. It also has other necessary sheds and out-buildings.

LIVE STOCK—The live stock belonging to the station and used in its work, consists of the necessary teams, a herd of beef cattle, a herd of pure-bred Jersey cattle, and a flock of sheep. A pure-bred Angus bull is at the head of the beef herd, in which there are about thirty cows. A pure-bred Dorset buck heads the flock of sheep.

Outline Of Station Work

Soils—A study of the chemical and physical composition of the different soils of the State.

Pot experiments to determine the fertilizer needs of the different classes or types and the crops best adapted to them.

A study of the *worn* soils as to the cause of exhaustion and how best to improve them.

A study of conditions of *water supply* in our soils and how best to improve poor conditions.

A study of several rotations on the productiveness of soils.

Sundry other work which arises in other lines of station work.

A study of field crops such as cotton, corn, oats, wheat, cowpeas, Johnson grass, alfalfa and sundry grasses, clovers, vetches, lupines etc.

Grasses and Forage Plants—Field and pasture tests with melilotus, vetch, oats, cowpeas, lespedeza, Bermuda grass, sorghum etc.

Making a Permanent Pasture—Grasses used: Bermuda, orchard, red top, blue grass, lespedeza, red and white clover, turf oats and vetch.

Beef—To determine our facilities for raising good beef cows with home grown stuff with special reference to good pastures cotton products, hays and soiling.

To test the difference between our scrub and grade Jersey cattle and grades of good beef quality.

The beef calves are divided into groups and each group given a different treatment for the purpose of testing the merits of certain methods for the production of beef.

Sheep—The work with sheep is similar in every way to the experiments being made with beef cattle.

One of the principal lines of work consists in practical feeding tests to determine the relative values of the feedstuffs commonly used in the state.

The principal work in horticulture that is being done is the testing of varieties of peaches, plums, strawberries, blackberries and raspberries.

Peaches—More than a hundred varieties of peaches are being tested, including the following: Jessie Kerr, Japan Blood Alexander, Early Rivers, Troth's Early, Champion, Triumph Elberta, Tillotson, Chinese Honey, Peento, May Beauty, Mountain Rose, Lady Ingold, Amelia, Foster, Husted's Early, Family Favorite, Crawford's Early, Gen. Lee, Thurber, Wager, Globe, Wheatland, Muir, Lemon Cling, Orange, William's Cling, Smock Free, Chair's Choice, Lemon Free, Wonderful, Mrs. Brett, Chinese Free, Chinese Cling, Snow Cling, Crawfords Late, O. M. Free, O. M. Cling, Stevens, Rareripe, Stump theWorld, Sallie Worrell, Heath Cling, Ringold Mammoth Cling, Steadily, Piquet's Late, Salway, Eaton's Golden, Sneed, Beauty Blush, Emma Crosby, Hugh's I. X. L., Everbearing, Stinson's October, Greensboro, Nix Late; Bilyne's Late, Busten's October, Baldwin's Late, Angel Onderdonk, Pallas, Cobler's Indian, Imperial, Victoria, Mamie Ross, Waldo and Mathew's Beauty.

There is also a commercial orchard with 1,000 Elberta trees and 50 trees of Triumph.

Plums.—Varieties (two or three of each kind)—Red June, Prunus Pisardii, Shropshire Damson, Washington, Prune Tragedy, Coe's Golden Drop, Fellemberg, German Prune, Lombard, Shipper's Pride, Abundance, Berckman's Sweet Botan, Prunus Simoni, Satsuma, Ogon, Burbank Willard, Wickson, Milton, Wayland, Pottawottamie, Wild Goose, and Chase.

Small Fruits—There is also being tested about one hundred and twenty varieties of strawberries and fifteen varieties each of blackberries and raspberries.

In addition to the above, some work with fertilizers for orchard crops, small fruits and potatoes is being done.

Value of feeding stuff.—Experiments are conducted to determine the relative value, for dairy purposes, of raw and steamed cotton seed, cornmeal and corn-and-cob meal, cornmeal and wheat bran; cowpea hay, Johnson grass hay, Bermuda hay, lespedeza hay and sorghum hay; corn silage and sorghum silage; also the effect of these feeds on the milk and butter produced.

Record of Herd.—The cost of keeping cows for one year is being determined, as is, also, the amonnt of milk and butter produced, and its value when sold as milk, butter or cream; the best method of handling and feeding cows to secure the largest profits; seven-day tests of cows for dairyman; the change in per cent. of fat in milk due to advance in lactation, and the cost of raising calves.

Handling the milk.—The best methods of ripening cream are being studied, as well as the effect, on the quality of butter, of churning at different temperatures, and the effect of pasteurizing cream. Also the making of cheese.

Southern cattle Fever.—Susceptible cattle are being inoculated with defibrinated blood of native cattle to render them immune.

Contagious Diseases.—Work is done to prevent the spread of contagious diseases.

In the department of Botany and Entomology specimens are identified and information concerning the same given.

A study is being made of insects injurious to pecans, the peach-tree borer and scale insects.

Several hundred experiments are being conducted at the McNeill Branch Experment Station and more than a hundred others in co-operation with farmers in different parts of the state. The co operative experiments are with fertilizers and alfalfa. The experiments at McNeill include extensive tests with fertilizers under farm, orchard, and garden crops. A great many varieties of plants are being grown, including farm crops, garden crops, orchard crops, grasses, clovers and forage plants.

Several bulletins are issued each year by the Station giving the results of experiments made. These bulletins are sent free to those who apply for them.

Farmers' Institutes.

The last Legislature appropriated three thousand ($3,000) dollars for Farmers' Institutes, and it is the purpose of the college to place a live institute in reach of every progressive community of the State.

The students and alumni of this institution are urged to give their co-operation, both in locating and conducting these institutes. This work is an effort to carry the College out to the people, and by helping the institutes you are serving not only the people,, but the college as well.

Any community desiring an institute may secure one by addressing the president of the college.

Miscellaneous

W. J. GALLAWAY, PROCTOR.

BUILDINGS AND GROUNDS.

The college is located one and one-half miles from the town of Starkville, directly on the branch of the Mobile & Ohio Railroad extending from Artesia to Starkville.

There is at the College a postoffice and Southern Express office (Agricultural College, Miss.), and M. & O, R. R. office (A and M. College, Miss.)

The dormitory is a large three-story building, which has 150 bedrooms. In the basement there are bathrooms, equipped with nineteen porcelain enameled tubs supplied with hot and cold water.

The smaller,or new dormitory, containing 39 rooms, will be used exclusively for bedrooms.

Both buildings are well ventilated, heated with steam an lighted by electricity.

A new and complete system of water closets, lavatories, and sewerage has just been completed, which gives perfect sanitary conditions to the buildings and campus.

The magnificent building erected for the use of the Textile School is located upon a beautiful natural elevation east of the other buildings. This department, which promises to be one of the most important of the institution, is equipped with the latest and most approved machinery for the manufacture of all kinds of cotton cloth, yarns and knit goods.

All the leading American makers of textile machinery are represented by donations. The building has been completed at a cost of about $30,000, and the equipment of machinery is valued at over $35,000, the larger portion of which was donated to the Textile school by the manufacturers.

The academic building, a handsome brick, 70x120 feet, has three stories and a basement. On the upper floor there are six rooms, all used by the professor and instructors in the preparatory department, except one, which is used by the department of bookkeeping and penmanship.

On the second floor there are also six rooms, three used by the department of English, two by the department of mathematics, one by the professor of military science and tactics.

On the first floor will be found the assembly hall, commandant's office and classroom for the professor of history and civics.

The postoffice (Agricultural College, Miss.,) is located in the basement of this building, as is also the armory for the storage of the arms furnished by the war department at Washington.

The chemical laboratory is composed of an old and a new building, so joined as to make one—the old building, 40x90 feet, two stories, and the new one, 48x56, two stories and basement, of brick. On the first floor of the old building is carried on the work of the chemical division of the experiment station. The first floor of the new building is devoted to the work of the State chemist. The second floor of both buildings is given up to lecture and laboratory rooms for instruction in chemistry, a library and museum room, and an office for the State chemist. The new building is heated by hot air from a furnace in the basement.

The mechanical department buildings are of a substantial nature, with side walls of iron sheeting, in which are located the power, light and pumping plants, machine shops, mechanical and electrical laboratories.

Adjacent to this, in a separate brcik building, will be found the forge shops and foundry, equipped for practical instruction in blacksmithing, moulding etc. Also a lecture room for the Professor of Mechanical Engineering, equipped with apparatus for testing water pressure, steam pressure, strength of materials etc.

In a two-story frame building is located the wood-working machinery, turning lathes, work benches, etc. In this hall the machinery is run by electricity. The upper floor of this building contains the lecture and laboratory rooms for physics.

The drawing rooms for this department are located on the upper floor of the executive building.

The experiment station building is a two-story frame one, with basement. It has ample office room for the director and his staff, and also the station library in which is kept records of the work of the different experiment stations, and much other valuable information, that is free to the farmers of the state for the asking.

The dining hall is a one-story frame 60x120 feet, with iron roof and brick floor. The main hall is used exclusively for serving meals, the office of the steward is attached to the hall.

There is an addition to the main building, 70x50 feet, in which is located the kitchen, bakery and storeroom for groceries.

The greenhouses and other propagating houses,all made in the latest and most approved style, cover an acre of ground, and constitute one of the most attractive features about the campus and grounds.

The laundry building is located convenient to the central power station, and is equipped with a complete and up-to-date laundry outfit, where all work for students is done. There is also in this building a room fitted up for cleaning, pressing, dyeing, where students can get their work done in that line at minimum cost.

The new infirmary, of brick, furnished with all the latest improved appliances for the convenience and comfort of the sick; has two large wards with 22 beds in each, four private wards, surgeon's office, reception-room for trained nurse, two dining-rooms, kitchen, closets and bathrooms, heated with steam and furnished with electric lights.

The scientific building contains a large lecture-room, to be used by the professors of agriculture, horticulture, and veterinary surgery for demonstrative lectures, a museum, library, reading-room, class-rooms and laboratory for the biological department, classrooms for each of the departments of agriculture, horticulture, and veterinary science. The entire building is to be heated with steam, equipped with electric lights, and have a complete system of plumbing. In this building is also located the lecture rooms and office of the department of Rural and Civil Engineering.

The dairy building, a neat two-story brick, is equipped with the latest and most improved machinery for the proper demonstration of the successful manufacture of high grade butter, and cheese and, the Pasteurization of milk.

HEALTH.

The college buildings are on a series of variously shaped hills, 422.4 feet above the see level, gently sloping and drained in every direction, remote from marshes, and having the requisites for promoting vigorous health. In addition there is a complete system of sewerage connected to the main building, a magnificent water supply furnished by two Artisean wells of over a thousand feet in depth.

In addition to these advantages in situation, the facilities for caring for the sick are of such superior nature that the majority of those who visit sick students readily admit that, a mother's or sister's presence excepted, they are better provided for than they would be at home;for here there is a well-equipped hospital, and a skilled physician and trained nurse are in attendance upon sick students day and night, if necessary.

ADDRESSES, DECLAMATIONS, CRITICISM.

The students assemble every Friday at 2:30 p. m. to listen to lectures delivered by some officer of the college, or to addresses, declamations, and criticisms from members of the college classes.

These exercises are occasionally varied by addresses from distinguished gentlemen, delivered before the corps of students by invitation of the faculty.

RELIGIOUS EXERCISES,

The daily duties are opened with prayer in the chapel—faculty and students being required to be present. On Sunday morning students may attend any church in the town of Starkville.

Every Sunday afternoon religious services are held in the chapel, at which all students must be present. These services are conducted, in turn, by the pastors of the different churches in the town of Starkville and vicinity.

YOUNG MEN'S CHRISTIAN ASSOCIATION

Besides the regular religious exercises in the college, a devotional service is held every Wednesday night and Sunday efternoon by the Young Men's Christian Association. This association was organized in the fall of 1882, and has been in successful operation since that time. Its object is to promote the cause of Christianity among the students by enlisting them in active Christian work.

All services are conducted by members of the association. The officers are as follows:

R. H. PURNELL	President
A. B. REESE	Vice-President
C. E. GARNER	Treasurer
T. V. RUSH	Secretary

LITERARY SOCIETIES

The literary societies, the Philotechnic and the Dialectic, furnish a valuable supplement to the academic work of the college. They are supported entirely by the students, who take great interest in them, about two-thirds of the students being usually enrolled as members. Their meetings are held weekly, on Saturday evening, and are always open to visitors. Their exercises, which consist of debates, declamations, and occasional essays, are well fitted to give students the practical acquaintance with parliamentary usage and the tactics of debate, and the ease and readiness in public speaking, so useful in every walk of life.

Each society has made the beginning of a library for the use of its members, which will be added to from time to time, as their means permit.

THE COLLEGE REFLECTOR, published by the literary societies, is devoted to educational, literary, and industrial topics. It will endeavor to give an accurate account of the working of the College in its various departments. Though designed primarily to encourage composition writing on the part of the society members, space will be given for the publication of public lectures by members of the faculty and others, and the orations and essays of students of the College. Price, seventy-five cents, in advance, per scholastic year. Sample copies sent free to any address. All communications should be addressed to Business Manager College Reflector, Agricultural College, Miss.

LIBRARY.

The library supplements and reinforces the work of all the departments of the college, and furnishes a pleasant and profitable place where students may spend their odd hours. Students are allowed free access to the book stacks, because it is thought that this intimate association with the books will arouse interest and a curiosity to pry into their contents, and in this way build up a fixed reading habit. A taste for good reading is an acquisition the worth of which connot be over-estimated, and to help to create this taste is one of the first functions of the library.

The library, with the additions made during the present session (1902 1903) contains about 9,000 bound volumes.

In addition to the general library, the reading room is furnished with many of the standard magazines and periodicals.

The following is a list of papers and magazines received at the library free of charge,and for which the College and students are grateful:

FROM THE STATE.

1. Biloxi Herald,
2. East Mississippi Times.
3. Ellisville News.
4. Fayette Chronicle.
5. Leader (Brookhaven).
6. Laurel Chronicle.
7. Meridian Press (daily).
8. Meridian Weekly Press.
9. Yazoo City Herald.
10. New South.
11. Pascagoula Democrat-Star.
12. Progresive Age.
13. Vicksburg Weekly Herald.
14. Southern Farm Gazette.
15. Weekly Clarion Ledger.
16. Weekly Democrat (Greenville).
17. West Point Leader.
18. Winona Democrat.
19. Winston County Journal.

FROM WITHOUT THE STATE.

1. Southern Planter.
2. Columbia University Quarterly.
3. Oklahoma Farm Journal.
4. Sound Currency.
5. World's Fair Bulletin (St. Louis.)
6. Farmers' Voice and National Rural.
7. American Agriculturist.
8. Advocate of Peace.
9. Farm Fireside.
10. Southern Cultivator.

The library also receives the various United States Government publications and State Experiment Station bulletins.

ALUMNI ASSOCIATION.

PRESIDENT	J. C. HERBERT
SECRETARY	F. J. WEDDELL
TREASURER	R. C. KING

EXECUTIVE COMMITTEE.

J. W. FOX, J. S. MOORE, A. J. MOORE.

The object of the association is to arouse and to strengthen friendly feelings among the members of its different graduating classes, and to aid the College in its noble work of upbuilding the industrial interests of the State.

Military Organization.

J. C. HARDY, PRESIDENT	Head of Military Department
COL. I. D. SESSUMS	Commandant

FIELD AND STAFF.

E. N. BROYLES	Major Commanding Battalion
N. GILLIS	Captain and Adjutant
E. E. HOPKINS	Captain on Special Duty
C. E. LILLY	First Lieutenant and Quartermaster
C. K. TAYLOR	Lieutenant Musician

NON-COMMISSIONED STAFF.

C. E. Spencer	Sergeant-Major
C. A. Jackson	Ordnance Sergeant
C. A. Hardy	Sergeant Musician

COMPANY A.

T. W. Holmes	Captain
W. V. Reed	First Lieutenant
G. L. Brown	Second Lieutenant
H. C. Wynne	First Sergeant

SERGEANTS.

S. E. Herrington
T. V. Rush
E. H. Williams
W. B. Crumpton

CORPORALS.

W. H. Torrey
E. H. Schlater
J. S. Watson
T. J. Hargrave
R. R. Welch, Sr
L. M. Joyner

COMPANY B.

H. D. Shaw	Captain
H. F. McShane	First Lieutenant
W. L. McElroy	Second Lieutenant
R. H. Purnell	First Sergeant

SERGEANTS.

R. C. Weems
J. B. Neilson
S. M. Harmon
W. M. Garrard

CORPORALS.

C. L. Lincoln
W. E. Hester
W. B. Donald
J. E. Baylis
E. O. Simmons
L. B. Joyce

COMPANY C.

J. H. Eaton	Captain
W. H. Winters	First Lieutenant
J. J. Robert	Second Lieutenant
T. G. Wortham	First Sergeant

SERGEANTS.

J. A. Malone	J. K. Miither
T. W. Davis	C. E. Ward

CORPORALS.

W. C. Neal	W. F. Nichols
R. B. Schlater	V. M. Wilson
J. T. Harrison	H. L. Comer

COMPANY D.

L. D. Booth	Captain
W. Stark	First Lieutenant
S. A. Robert	Second Lieutenant
J. C. Rogers	Second Lieutenant
N. E. Greene	First Sergeant

SERGEANTS.

E. E. Tomlinson	S. H. Hinton
J. T. Sharp	D. A. O'Kelley

CORPORALS.

C. E. Garner	E. E. Eaton
J. W. Conger	J. E. Rives
H. E. Hunt	R. C. Brown

COMPANY E.

S. Ewing	Captain
H. E. Savely	First Lieutenant
T. A. Hardy	Second Lieutenant
R. S. Wilson	First Sergeant

SERGEANTS.

J. G. Coman	S. W. Jones
B. L. Moss	H. Overstreet

CORPORALS.

W. S. Vance	W. C. Watson
C. W. Davidson	J. C. McMichael
R. R. Welch Jr	C. W. Wallace

REGISTER OF STUDENTS.

GRADUATE STUDENTS.

I. D. SESSUMS	Chemistry.
C. R. STARK	Methematics.
J. R. RICKS	Agriculture.

UNDER GRADUATES.

SENIOR CLASS.

AGRICULTURAL COURSE.

Name.	*County.*	*Name.*	*County.*
Carothers, Miss R. B.	Oktibbeha	Mayo, C. B	Lowndes
Muldrow, W. C.	Oktibbeha	Reed, W. V.	Choctaw
Robert, S. A.	Wilkinson		

ENGINEERING COURSE.

Booth, L. D.	Monroe	Rogers, J. C.	Oktibbeha
Brandt, G. E	Harrison	Savely, H. E.	Chickasaw
Broyles, E. N.	Lowndes	Shaw, H. D.	Carroll
Ewing, S.	Hinds	Stark, W.	Oktibbeha
Hopkins, E. E.	Lowndes	Stiles, H. C.	Oktibbeha
McShane, H. F.	Leflore	Tatum, W. P.	Hinds
Pigford, H. E.	Lauderdale	Winters, W. H.	Jefferson
Robert, J. J.	Wilkinson		

TEXTILE COURSE.

Eaton, J. H.	Smith	McElroy, W. L.	Union
Gillis, N.	Jefferson	Robinson, D.	Leflore
Holmes, T. W.	Attala	Taylor, C. K.	Claiborne
Lilly, C. E.	Lee		

Irregulars.

AGRICULTURAL COURSE.

Magruder, Miss K. H.	Oktibbeha	Lopez, J. F.	Monterey, Mexico

ENGINEERING COURSE.

Harris, F. O............Lowndes

TEXTILE CLASS.

Moore, T. H.............Holmes

JUNIOR CLASS.

AGRICULTURAL COURSE.

Adames, J. E............Neshoba
Brown, G. L.................Lee
Jones, S. W.............Quitman
Moss, B. L.................Jones
Overstreet, H............Kemper
Purnell, R. H........Montgomery
Rogers, E. D.........Covington
Rush, T. V.............Claiborne
Spencer, C. E................Lee
Tomlinson, E. E.......Oktibbeha
Wilson, R. S..........Chickasaw
Wynne, H. C.............Grenada

ENGINEERING COURSE.

Crumpton, W. B., Montgomery, Ala
Eaton, O. B................Smith
Greene, N. E...........Marshall
Herrington, S. E.........Kemper
Hinton, S H...........Marshall
Maxwell, C. M........Oktibbeha
Perkins, J. B..........Oktibbeha
Saunders, M. A........Oktibbeha
Vinson, F. F.............Kemper

TEXTILE COURSE.

Ames, E. V..............Noxubee
Baily, S. M...........Lauderdale
Coman, J. G...............Hinds
Davis, T. W................Attala
Garrard, W. M............Leflore
Grace, J. R..............Lowndes
Hardy, T. A.................Perry
Hardy, C. A................Jones
Harmon, S. M........Lauderdale
Jackson, C. A..............Attala
Malone, J. A............Marshall
Neilson, J. B...........Lowndes
Reid, S. E............Chickasaw
Sharp, J. T..............Madison
Ward, C. E.................Clarke
Weems, R. C...............Clarke
Williams, E. H........Wilkinson
Woods, M. L..........Yalobusha
Wortham, T. G......Washington

Irregulars.

AGRICULTURAL COURSE.

Alston, J. T...........Oktibbeha
Chapman, A. H..........Newton
Critz, I. C.............Oktibbeha
Ellis, R. E.................Alcorn
Hester, C. F............Neshoba
Miither, J. K...........Harrison
Scales, H. L...........Oktibbeha
Stevens, R. E...........Copiah
Welborn, G................Jones

ENGINEERING COURSE.

Wilson, J. C............Harrison

TEXTILE COURSE.

Roberts, R. H........Sumter, Ala

SOPHOMORE CLASS.

AGRICULTURAL COURSE.

Allen, L. D................Leake
Barnes, W. J..........Covington
Baylis, J. E ....Perry
Bennett, O. A............Winston
Brown. R. C...........Claiborne
Conger, J. W... ....Carroll
Davidson, C. W........Wilkinson
Donald, W. B.............Clarke
Eaton, E. E.... .... Smith
Fogg, J. D................DeSoto
Gallaway, Miss Mary...Oktibbeha
Garner, C. E........Gibson, Tenn
Hall, M. M................Attala
Harrelson, W. S...........Smith
Hester, W. E.............Copiah
Herron, F. A..............Panola
Hunt, H. E.. ....Oktibbeha
Jacob, J. E..............Lowndes
McKenzie, W. E...........Smith
Neal, W. C.................Clay
Potts, R. H.....Natchitoches, La
Ridgway, J. W.........Oktibbeha
Rives, J. E...............Copiah
Robinson, V. J........Oktibbeha
Rogers, R. F..........Oktibbeha
Schlater, E. H.......... .Leflore
Schlater, R. B............Leflore
Shaw, S. P..............Jefferson
Simmons, E. O... ......Pike
Torrey, W. H...........Jefferson
Wallace, C. W............Alcorn
Watson, T. C............Monroe
Welch, R. R., Jr.......Covington
Wilson, V. M............Copiah
Wilson, J. R............Neshoba

ENGINEERING COURSE.

Alston, J. M...........Oktibbeha
Ball, G. C. ....Pike
Baylis, J. R................Perry
Bolton, W. B............Pontotoc
Bolton, F. C.......... .Pontotoc
Brady, S. S.................Clay
Bryan, C. A................Jones
Clay, T. F...........Tallahatchie
Cummings, J. L........Oktibbeha
Gartrell, F. E.............DeSoto
Harrison, L. E............Alcorn
Harrison, J. T...........Lowndes
Herron, A........ ....Yazoo
Herrington, R. L........Neshoba
Joyce, L. B.............Harrison
Lincoln, C. L. ....Lowndes
McGraw, F. A.............Yazoo
Montgomery, J..... .Lauderdale
Nason, G. M..........Oktibbeha
O'Kelley, D. A............Adams
Rogers, G. A.......Shelby, Tenn
Vinson, A. G........... Kemper
Watson, W. C.......Tishomingo
Yeates, N............Oktibbeha

TEXTILE COURSE.

Boddie, W. V...........Madison
Campbell, C. H............Yazoo
Chamberlain. D. H......Jefferson
Comer, H. L.............Warren
Gillespie, S...............Leflore
Hargrave, T. J............Copiah
Hill, C. V..............Grenada
Joyner, L. M..........Oktibbeha
Montgomery, A. T........Leflore
Rew, R. G. ....Newton
Taylor, R. S................Tate
Watson, J. S..........Oktibbeha
Whitaker, J...............Adams

Irregulars.

AGRICULTURAL COURSE.

Bransford, L.	Monroe
Gibbs, H. D.	Hinds
Hinojosa, C. L.	Monterey, Mexico
Langford, H. B.	Newton
McElroy, J. R.	Prentiss
McMullen, C. C.	Tallahatchie
Nichols, W. F.	Monroe
Overstreet, P. C.	Kemper
Parker, G. M.	Jones
Parker, N. M.	Jones
Phillips, R. H.	Lauderdale
Sellers, R. P.	Oktibbeha
Smith. H. J.	Attala
Spann, E. B.	Jasper
Triplett, C. W.	Leake
Turley, E. C.	Tate
Turner, O. F.	Rankin
Vance, W. S.	Lafayette
Wade, J. T.	Claiborne
Wade, R. D.	Claiborne
Welch. R. R.	Covington

ENGINEERING COURSE.

Bradford, J. H.	Harrison
Bell, W. A.	Leflore
Beristain, R.	Mexico City, Mexico
Giles, T. D.	Adams
Maxwell, A. J.	Oktibbeha
Wing, A. E.	Greene

TEXTILE COURSE.

Ellison, H. A.	Hancock
Jackson, C. Y.	Noxubee
McMichael, J. C.	Neshoba
Montgomery, T. M.	Oktibbeha
Robertson, S. L.	Noxubee
Simmons, S. F.	Pike
Strahan, C. E.	Perry
Wilkins, R. P.	Noxubee

FRESHMAN CLASS.

Adams, J. J.	Calhoun
Alderman, A,	Neshoba
Aldridge, J. H.	Washington
Alston, D. P.	Oktibbeha
Andresen, H.	Harrison
Arnold, R.	Perry
Aston, S. V.	Carroll
Barber, W. S.	Copiah
Baskin, W. A.	Chickasaw
Belford, J. H.	Holmes
Bender, C. T.	Newton
Bishop. E.	Hinds
Blumberg, M. D.	Clay
Bounds, E. T.	Clarke
Bradley, A. C.	Madison
Brady, B. W.	Montgomery
Brahan, J. C.	Panola
Brock, C. H.	Choctaw, Ala
Brothers, H. J.	Clay
Brown, F, E.	Lowndes
Lindsey, S.	Jones
Lipscomb, W. J.	Noxubee
Locke, C. E.	Lowndes
Lord, T. C.	Claiborne
Love, A. L.	Lowndes
McBride, C, L.	Leflore
McCreight, C.	Oktibbeha
McDonald, J. D.	Leake
McDowell, W. G.	Chickasaw
McGovern, J. D.	Choctaw
McIntosh, J. A.	Hinds
McKinney, C. C.	Monroe
McPherson, P. A.	Carroll
Maer, C. M.	Lowndes
Martin, W. W.	Oktibbeha
Maxwell, M.	Oktibbeha
May, H. C.	Pike
Melvin, G. M.	Madison
Mette, A. C.	Leflore
Mills, E. E.	Lee

Browning, R. M.	Prentiss
Burns, E. T.	Pike
Burns, J. S.	Prentiss
Butts, L. N.	Lowndes
Bynum, N. W.	Alcorn
Carothers, R. M.	Oktibbeha
Carter, C. C.	Tangipahoa, La
Carter, H. C.	Winston
Case, G. I.	Clarke
Castles, D. C.	Oktibbeha
Chapman, N. F.	Sunflower
Christopher, J.S.	Oktibbeha
Clark, A. P.	Oktibbeha
Coombs, G. W.	Tippah
Cross, G. A.	Clark
Cutrer, W. R.	Pike
Dameron, J. H.	Madison
Daniel, O. W.	Smith
Darracott, W.	Monroe
Ellis, J. E.	Lowndes
Ervin, H. D.	Clay
Estes, E S.	Clarke
Fall, J. B.	Jones
Fife, P. J.	Claiborne
Ford, K. D.	Hinds
French, O. E.	Claiborne
Gladney, J. B.	Oktibbeha
Goodman, R.	Oktibbeha
Graham, R. A.	Lafayette
Griffing. G. H.	Claiborne
Gunn, D. R.	Chickasaw
Gunn, R. B.	Chickasaw
Haley, E. O.	Claiborne
Hanna, O. A.	Attala
Hannah, S. G.	Oktibbeha
Hannah, J. D.	Oktibbeha
Harden, G. W.	Tate
Harding, J. W.	Hinds
Hardy, J. J.	Newton
Harris, H. C.	Tishomingo
Hawthorn, H. M.	Harrison
Henry. V. E.	Oktibbeha
Herrington, J. A.	Kemper
Herrington. R.P.	Claiborne
Hester, G. W.	Montgomery
Hibbler, T. P.	Clay
High, M. M.	Oktibbeha
Moore, T. H. Jr,	Holmes
Moore, R. E.	Holmes
Morgan, C. E.	Attala
Morris, W.	Holmes
Murdock, J. B.	Madison, Tenn
Mustin, B. E.	Lowndes
Newman, J. M.	Franklin
Nichols, H. S.	Oktibbeha
Nicholson, T. H.	Kemper
Oakley, H. D.	Winston
Oliver, S. E.	Monroe
Orendorf, B. T.	Sharkey
Owen, J. W.	Madison
Parker, C. H.	Jones
Parker, J. E.	Jones
Pearson, Miss D.	Oktibbeha
Pearson, Miss N.	Oktibbeha
Pentecost, A. L.	Leflore
Peo, E. H.	Monroe
Puller, N. W.	Oktibbeha
Reese, A. B.	Leflore
Reid, W. D.	Chickasaw
Richards, B.	Knox, Tenn
Robertson C. H.	Clay
Rogers, Earl D.	Lauderdale
Rubel, L.	Alcorn
Ruff, D. T,	Choctaw
Rush, H. M.	Claiborne
Sargent, J. V.	Choctaw
Sanders, W. C.	Oktibbeha
Sauls, R. L.	Pike
Sellers, T. G.	Oktibbeha
Shaw, W. E.	Choctaw
Shropshire N. F.	Oktibbeha
Simmons, C. A.	Pike
Smith, J. A.	Copiah
Smith, R. A.	Madison
Spencer, S. C.	Lee
Spotswood, M. W.	Mobile, Ala
Statham, W. B.	Hinds
Steele, L. B.	Kemper
Stiles, J. R.	Winston
Stratton, R. E.	Sharkey
Stratton, L. M.	Sharkey
Summers, J. F.	Gage, Nebr
Sumrall, M. Q.	Iberia, La
Swittenberg, S. C,	Madison

Hodges, F. L.	Chickasaw
Holmes, J. A.	Attala
Holt, W. R.	Alcorn
Hull, C. G.	Attala
Hummer, G. A.	Noxubee
Hurst, F. M.	Clay
Ivy, W. S.	Clay
James, C. H.	Madison
Johnston, J. V	Lawrence
Jones, T. A.	Copiah
Joyce, W. V.	Harrison
Joyner, E. L.	Lee
Kerr, A. P.	Kemper
Kirkland, C. H.	Jones
Knost, J. H.	Harrison
Kostmayer, M. D.	Orleans La
Landrum, W. S.	Holmes
Lambert, W.	Yazoo
Levy, H.	Marengo, Ala
Taggart, W. G.	Kemper
Tate, H. D.	Pike
Thompson, H.	Washington
Thompson, W. H.	Chickasaw
Torrey, L. W.	Jefferson
Walker, G. B.	Pike
Watson, W. C. Jr.	Holmes
Westphal, F. C.	Jackson
White. W. H.	Harrison
Whitehead, W. O.	Montgomery
Whitfield, N. W.	Lowndes
Willis, J. W.	Grenada
Wing, N. S.	Greene
Winston, R. B.	Oktibbeha
Wise, J. L.	Choctaw
Wynne, R. E.	Tallahatchie
Yeates, L. W.	Webster
Zepernick, D. E.	Noxubee

Irregulars.

Alford, T. S.	Lincoln
Allen, C. B.	Claiborne
Carroll, S.	Oktibbeha
Ewing, C. J.	Yazoo
Haysel, A. R.	Lancaster, Nebr
Lewis, D. L.	Hinds
Oglesby, C. G.	Lee
Simmons, W. L.	Yazoo
Tarry, A. C.	Washington
Wilkinson, J. M.	Warren
Wright, B. F.	Lauderdale
Yates, C.	Neshoba

PREPARATORY CLASS.

Abernethy, W. L.	Chickasaw
Alberts, C. C.	Jackson
Alderman, A. D.	Lincoln
Alderman, E. M.	Lincoln
Aldridge, J. A.	Washington
Aden, H. F.	Lauderdale
Anderson, W. W.	Tate
Anderson, W. R.	Tate
Arnold, J. W.	Wassau, Fla
Arnold, G. R.	Bolivar
Arnold, L. T.	Perry
Avent, P,	Leflore
*Avery, C. W.	Covington
Azewell, S. P.	Chickasaw
Babb, G. W.	Alcorn
Babb, L. O.	Pontotoc
Barremore, W. H	Pike
Barrett, R. H.	Kemper
Hunt, W. C.	Oktibbeha
Hyman, S.	Holmes
Jackson, D. W.	Winston
Jackson, C. R.	Winston
Jackson, S. A.	Noxubee
Jackson, H. F.	Noxubee
Jarvis, T. E.	Kemper
Johnson, J. G.	Newton
Johnson, J. W.	DeSoto
Jones M. J.	Hinds
Kennon, S. E.	Tunica
Kimmons, M. L,	Alcorn
Kinard, T. S.	Lauderdale
Latimer, W. H.	Harrison
Lee, J. H.	Bolivar
Lee, E. C.	Shelby, Ala.
Love, R. S.	Leflore
Luhm, R. H.	Issaquena

Bass, S. L.	Lee
Bethea, A. D.	Jasper
Bethea, W. C.	Covington
Bishop, C. Y.	Hinds
*Boisclair, L. L.	Coahoma
Boone, W.	Coahoma
Booty, J. E.	Pike
Bounds, I. A.	Jasper
Bounds, I.	Lauderdale
Brady, B. A.	Kemper
Brent, A. P.	Pike
Brewer, O. C.	Lawrence
Brown, J. A.	Monroe
Brown, W. W.	Chickasaw
Brown, C. M.	Madison
Bryan, F. B.	Lee
Bryant, D. L.	Jones
Buckley, M. S.	Newton
Buford, E. C.	Holmes
Bursk, C.	Leflore
Burch, C. H.	Perry
Burch, J. T.	Perry
Burrus, F. V.	Yazoo
Byrd, R. C.	Neshoba
Cammack, G. L.	Tallahatchie
Campbell, D. A.	Prentiss
Carleton, B. B.	Quitman
Carnathan, W. C.	Holmes
Carpenter, J. M.	Oktibbeha
Carter, W. F.	Winston
Cauthen, L, M.	Madison
Cavin, R. K.	Wilkinson
Chapotel, L. L.	Harrison
Cheatham N. P. S.	Yazoo
Christmas, C. T.	Bolivar
Christmas, W. F.	Bolivar
C'ark, A. M.	Warren
Cole, R. O.	Noxubee
Collins, F. W.	Newton
Connell, M. L.	Oktibbeha
Cooper, I. E.	Walker, Ala
Cartright, I. S.	Sharkey
Cartright, J. H.	Sharkey
Cork, J. D.	Choctaw
Culter, L.	Covington
Cowan, E. J.	Clarke
Lyle, P. C.	Scott
McArthur, W. S.	Kemper
McCormick, F. B.	Lauderdale
McDaniel, H. E.	Pike
McDaniel, E. J.	Pike
McDill. D. E.	Sunflower
McDill, W. A.	Sunflower
McElroy, H, K.	Larderdale
McGraw, R. E.	Noxubee
McGwier, W. C.	Colbert, Ala
McMullan, T. L.	Newton
McMullen, N. J.	Tallahatchie
McNeese, T. B.	Marion
McReynolds, W. W.	Oktibbeha
Majure, C. C.	Neshoba
Mann, A. H.	Leake
Mathews, J. M.	Lauderdale
Matthews, R. L.	Yalobusha
Meek, A.	Attala
Miller, A. S.	Clay
Miller, S. H.	Lauderdale
Miller, A. R.	Marshall
Moorhead, J. W.	Oktibbeha
Murray, C. M.	Jackson
Myatt, W. F.	Neshoba
Nailer, F.	Warren
Nelson, E. T.	Jackson
Newman, W. C.	Amite
Newman, J. L.	Amite
Noble, J. W.	Jefferson
Norris, E. W.	Covington
Oden, M. M.	Kemper
Ormond, L. T.	Scott
Ormond, M.	Scott
O'Rorke, S. J.	Covington
Owen, S. L.	Bolivar
Owens, H. L.	Oktibbeha
Owen, J. C.	Yalobusha
Owen, J. M.	Madison
Ott, E. A.	Pike
Page, A. S.	Lauderdale
Parker, J. W.	Jones
Patten, B. E.	Marion
Patterson, E. B.	Lawrence
Payne, W. G.	Lauderdale
Pou, J. G.	Wayne

*Deceased....................

Cox, E. E.	Panola
Crawford. H. L.	Pike
Crisler, J. D.	Hinds
Crosby, J. R.	Jones
Crouch, J. T.	Warren
Crow, J. A.	Choctaw
Currie, S. J.	Lauderdale
Currie, H. S.	Hinds
Cutrer J. H.	Pike
Dantzler, L. E.	Noxubee
Darcus, A. P.	Carroll
Davis, W. G.	Lincoln
Dees, J. J.	Kemper
Denman, D. E.	Tallahatchie
Dickerson, C. H.	Pike
Dorroh, H. E.	Kemper
Dossett, A. M.	Hinds
Drury, G. R.	Lincoln
Duggan, J. J.	Yazoo
Elder, J. C.	Harrison
Elliott. J. T.	Neshoba
Fairly, J. D.	Copiah
Federic, J. E.	Tallahatchie
Fewell J. R.	Tate
Flournoy, W. C.	Lowndes
Flowers, A. J.	Carroll
Floyd, L. D.	Carroll
Fortenberry, A. G.	Copiah
Foster S. V. M.	Holmes
Fogarty, C. F.	Oktibbeha
Gale, E. R.	Yazoo
Gammel, H. B.	Alcorn
Gates, C. J.	Harrison
Graham, S. G.	Perry
Graham, A. C.	Newton
Gray, F. S.	Bolivar
Greene, B. B.	Marshall
Gregory, J. F.	Winston
Griffin, F. E.	Hinds
Griffin, M. C.	Leflore
Guess, H. L.	Pike
Hairston, W. B.	Lowndes
Hairston, G. H.	Lowndes
Hale, I. W.	Hinds
Haley, G.	Monroe
Hanner, L. M.	Newton
Hardin, M. W.	Tunica
Quinn, O. L.	Oktibbeha
Regan, J. B.	Amite
Renfrow, J. C.	Washington
Riggan, S. J.	Monroe
Rebertson, W. N.	Holmes
Robertson, E. R.	Holmes
Robinson, A. B.	Kemper
Rogers, B. R.	Covington
Russell, J. F.	Oktibbeha
Sample, V.	Lee
Sanders, A. P.	Noxubee
Seale, J. E.	Neshoba
Seitz, J. L.	Oktibbeha
Shackelford, J. B.	Yazoo
Shannon, W.	Coahoma
Sharpe, J. K.	Scott
Shaw, L. C.	Adams
Sheley, R. C.	Tallahatchie
Shelton, O. E.	Jefferson
Shelton, J. R.	Chickasaw
Shelton, R.	Jefferson
Smith, R. E.	Wayne
Smith, G. S.	Walker, Ala
Smith, H. K.	Lawrence
Smith, W. L.	Holmes
Snow, G. G.	Neshoba
Spann, R. L.	Jasper
Spencer, J. B.	Jefferson
Stanley, S. C.	Clay
Staton, D. E.	Tallahatchie
Strahan, W. C.	Perry
Steele, C. M.	Scott
Stuart, C. H.	Kemper
Stuart, F. M.	Winston
Thomas. D. C.	Clarke
Thomas, J. S.	Neshoba
Thompson, E. D.	Oktibbeha
Thurmond, W. W.	Holmes
Triplett, F. M.	Winston
Trotter, H. B.	Sunflower
Turley, W. R.	Tunica
Turner, C.	Washington
Voellinger, W. E.	Warren
Wade, H. H.	Jones
Washington, W. L.	Madison, Tenn
Watts, P. L.	Sunflower
Watson, J. D.	Lowndes

Harris, O. H.	Tishomingo
Harris, W. L	Newton
Harris, W. H	Monroe
Harris, S. V	Tippah
Henderson, J. T	Tate
Henrich, P	Holmes
Hill, L. W	Prentiss
Hogan, E. P	Sunflower
Howard, W. E	Jones
Hubbard, R. C	Simpson
Hull, J. L	Attala
Webb, A. C	Kemper
Weiland, H. B.	E. Baton Rouge, La
White, G. W	Kemper
Williams, G. F	Quitman
Williams, L	Claiborne
Wood, O. W	Winston
Yates, I. C	Neshoba
Young, T. F	Noxubee

SPECIAL TEXTILE.

FIRST YEAR.

Barron, W. J	Rankin
Bozeman, W. S	Lawrence
Carter, R. E	Choctaw
Clisby, M. B	Clay
Coleman, R. M	Noxubee
Connell, W. V., Jr	Lowndes
Jones, E. C	Grenada
Pollard, S. H	Choctaw
Sadler, J. M.	Chickasaw

SECOND YEAR.

Bush, W. L	Noxubee
Morton, W. E	Lowndes
Neal, W. S	Hinds
Staton, L	Tallahatchie
Stevens, S. R	Pike
Tipton, J. C	DeSoto

PRACTICAL WORKING BOYS' COURSE.

Bailey, F. E	Greene, Ala
Barksdale, L	Yazoo
Bassett, L. G	Smith
Bunch, J. R	Lee
Combs, F. L	Lauderdale
Courtney, O	Perry
Johns, D. B.	Spartansburg, S. C
Lee, R. E	Greene, Ala
Myers, H. T	Scott
Neyman, A. R	Clay
Rawls, W. H	Greer, Oklo
Stringer, W. W	Smith
Taylor, J. K	Lee
Thomas, D. H	Holmes
Wilburn, H. H	Yazoo
Williams, J. H	Sunflower

SPECIAL COURSE.

Name.	County.	Course.
R. H. Leavell	Oktibbeha	English

APPLICANTS FOR FRESHMAN CLASS.*

Alston, H. S	Oktibbeha
Critz, H. W	Oktibbeha
Critz, A	Oktibbeha
Hartness, C. K	Oktibbeha
Lewis, R. E	Oktibbeha
Lewis, W. E.	Oktibbeha
Rose, M.	Clay

*NOTE—The above applicants could not pass the required examination for entrance into the freshman class, and under the regulations of the Board of Trustees, could not be admitted to the Preparatory Department.

SUMMARY.

Graduate Students	3
Agricultural Seniors	5
Engineering Seniors	15
Textile Seniors	7
Agricultural Juniors	12
Engineering Juniors	9
Textile Juniors	19
Agricultural Sophomores	35
Engineering Sophomores	24
Textile Sophomores	13
Freshmen	171
Irregulars	62
Preparatory Students	241
Special Course	15
Practical Working Boys' Course	16
Special Course	1
Applicants for Freshman Class	7
Total	655

Degrees Conferred.

Commencement Day 1902.

BACHELOR OF SCIENCE.

AGRICULTURAL COURSE.

Name,	*County.*	*Name.*	*County.*
Adams, R. H.	Clarke	Muris, H.	Monterey, Mex
Barr, F. E.	Oktibbeha	Ricks, J. R.	Oktibbeha
Brandt, J. B.	Harrison	Rhodes, L. T.	Choctaw
Estes, C. E.	Clarke	Rowan, T. D.	Prentiss
Featherston, C. D.	Noxubee	Washington, R. S.	Oktibbeha
Holliday, H. M.	Oktibbeha	Walker, H. A.	Clarke
Miller, Miss R. M.	Oktibbeha		

MECHANICAL COURSE.

Alston, W.	Oktibbeha	Hudson, E. E.	Lowndes
Connell, W. V, Jr.	Lowndes	Hughes, T. G.	Leflore
Harrington, R. A.	Oktibbeha	Walker, W. K.	Fulton, Ky
Hopkins, R. M.	Lowndes		

MASTER OF SCIENCE.

Stockard, C. R.	Lowndes

Awards in 1902.

ALUMNI MEDAL.

FOR THE BEST DEBATE IN THE JUNIOR CLASS.

E. N. Broyles,...Lowndes County

MAGRUDER MEDAL.

FOR THE BEST ORIGINAL SOPHOMORE ADDRESS DELIVERED DURING THE LAST COLLEGE TERM.

R. S. Wilson...Chickasaw County

PHILOTECHNIC SOCIETY MEDALS.

FOR THE BEST PUBLIC DEBATE BY A MEMBER OF THE SOPHOMORE CLASS.

George Welborn...Jones County

PRIZE DECLAMATION.

W. H. Torrey...Jefferson County

DIALECTIC SOCIETY MEDALS.

FOR THE BEST PUBLIC SOPHOMORE DEBATE.

R. S. Wilson...Chickasaw County

PRIZE DECLAMATION.

W. S. Vance...Lafayette County

J. Z. GEORGE SCHOLARSHIP.

W. C. Neal...Clay County

Program for Commencement.

1903.

Friday, May 29—Society Exhibition.

Dialectic Society Anniversary at 8:30 P. M.

Saturday, May 30—Society Exhibition.

Philotechnic Society Anniversary at 8:30 P. M.

Sunday, May 31.

Commencement Sermon at 11 A. M.—Bishop Warren A. Candler, Atlanta, Georgia.

Sermon before Y. M. C. A. at 8:30 P. M.—Bishop Warren A. Candler, Atlanta, Ga.

Monday, June 1—Military and Industrial Day.

Senior Addresses	11 A. M
Battalion Drill and Dress Parade	4:00 P. M
Junior Debate for Alumni Medal	8:30 P. M

Industrial Exhibits: 9 to 11 A. M.; 3 to 5 P. M.

Tuesday, June 2—Commencement Day.

Annual Address at 11 A. M., Hon. Richard H. Edmonds, Baltimore, Md.

Delivery of Medals and Diplomas and Award of the J. Z. George Scholarship.

CALENDAR FOR 1903-1904.

Session begins	September 16, 1903
Half-term begins	November 1, 1903
Second term begins	December 18, 1903
Half-term begins	February 2, 1904
Third term begins	March 14, 1904
Half-term begins	April 20, 1904
Commencement sermon	May 30, 1904
Annual Address and delivery of diplomas	June 2, 1904

INDEX.

Admission—conditions of 11-13
Addresses—delivered every Friday 74
Agriculture—department of 30
  professor of 4
Alumni Association—officers and objects of 77
Apportionment—of students to counties 13
Bachelor of Science—when degrees of conferred 29
Biology and Geology—department of 57
  professor of 5
Buildings and Grounds—description of 70-73
Calendar—for 1903-1904 92
Chemistry—department of 53
  professor of 5
College Reflector—published by Literary Societies 75
Course of Study 23-25
Dairy Husbandry—department of 48
  profesor of 4
Declamation—see Course of Study 23-25
Degrees—on whom conferred 29
  conferred at commencement, 1902 90
Dialectic Societies—meeting and exercises of 75
Discipline—is military 19-21
English—department of 59-60
  professor of 5
Express Office 1
Expenses—detailed statement relating to 16-19
Experiment Station—officers of 5
  detailed statement concerning 66-67
Faculty—and other officers 4-5
Farmers Institutes 70
Freshman Class—members of 83-85
  course of study 23-25
Freight Office 1
Grading—system of 21-22
Girls—condition of admission 15
Health—statement concerning 74
Horticulture—department of 46-48
  professor of 4
History and Civics—department of 62-64
  professor of 5
Instruction—departments of 30-32
Junior Class—members of 81
  course of study in 23-25
Law Admitting Students 14-16
Library—statement concerning 76-77

Literary Societies—meetings and exercises of 75-76
Master of Progressive Agriculture—honorary degree 29
Master of Science—when degree conferred 29
Mathematics—department of 60-61
  professor of 5
Mechanic Arts and Electricity—department of 32-39
  professor of 4
  instructors in 4
Medals—awarded in 1902 91
Military Organization—Field and Staff and Companies 77-79
Military Science and Tactics—Department of 61-62
  professor of 5
Objects of the College 7-10
Philotechnic Society—meeting and exercises 75
Pledge taken on entering 11
Post-Graduates—names of 80
Post-Office 1
Preparatory Department—Instructions, etc., in 64-66
  professor of 6
  instructors in 6
  students in 85 88
  course of study in 64
Recapitulation of Students 89
Religious Exercises—daily duties opened with 74-75
Reports—system of 21-22
Scholarship—J. Z George 91
Senior Class—members of 80
  course of study for 23-25
Short Course—farmers' 26-27
Sophomore Class—members of 82-83
  course of study for 23-25
Student Labor—see expenses 16-19
Students—register of 80-88
  apportionment of, to counties 13-14
Study—course of 23-25
Telegraph Office 1
Textile Department—professor of 4
  instruction in 40-46
  course of study of 23-25
Trustees 3
Under Graduates—names of 80-88
Veterinary Science—department of 50-53
  professor of 5
Young Men's Christian Association—officers of 75

3 0112 105848441